D-V8000

SERVICE MANUAL

E Model
Chinese Model
Tourist Model

Model Name Using Similar Mechanism	D-223
CD Mechanism Type	KSM-331CAN (S)
Optical Pick-Up Name	KSS-331C

SPECIFICATIONS

System
Compact disc digital audio/video system
Laser diode properties
Material: GaAlAs
Wavelength: λ=780 nm
Emission duration: Continuous
Laser output power: Less than 44.6 µW*
* This output is the value measured at a distance of 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.
Error correction
Sony Super Strategy Cross Interleave Reed Solomon Code
D-A conversion
1-bit
Channel number
2 channels
Frequency response
20 - 20,000 Hz $^{+1}_{-2}$ dB (measured by EIAJ CP-307)
Output (at 6 V input level)
Headphones (stereo minijack)
10 mW + 10 mW at 16 ohms
Line output (stereo minijack)
Output level 0.7 V rms at 47 kilohms
Recommended load impedance over 10 kilohms
Video output (minijack)
Output level 1 Vp-p at 75 ohms
Recommended load impedance over 75 ohms

General
Power requirements
Player:
• Four LR6 (size AA) batteries: 6 V DC
• AC power adaptor (DC IN 6 V jack):
120 V, 60 Hz
220 - 230 V, 50/60 Hz
100 - 240 V, 50/60 Hz
(AC power required differs depending on where you purchased the player.)
Remote control:
• Two LR6 (size AA) batteries 3 V DC

Dimensions (w/h/d) (incl. projecting parts and controls)
Approx. 140.5 × 30.5 × 144.2 mm
($7 \times 1^3/_8 \times 5^3/_4$ in.)
Mass (excl. rechargeable batteries)
Approx. 330 g (14 oz)
Approx. 440 g (1 lb 2 oz) (incl. alkaline batteries and a CD)
Operating temperature
5˚C - 35˚C (41˚F - 95˚F)

Supplied accessories
AC power adaptor (1)
AV monitor cord (1)
Remote control (1)

Design and specifications are subject to change without notice.

PORTABLE VIDEO CD PLAYER

MICROFILM

SONY®

TABLE OF CONTENTS

1. GENERAL 3

2. SERVICING NOTES 16

3. DISASSEMBLY 18

4. SERVICE MODE (TEST MODE) 20

5. ELECTRICAL ADJUSTMENTS 21

6. DIAGRAMS

6-1. IC Pin Function Description 24
6-2. Block Diagram 33
6-3. Printed Wiring Board – MAIN Board – 38
6-4. Schematic Diagram – MAIN Board (1/2) – 41
6-5. Schematic Diagram – MAIN Board (2/2) – 46
6-6. Schematic Diagram – LCD Board – 49
6-7. Printed Wiring Board – LCD Board – 51

7. EXPLODED VIEWS 62

8. ELECTRICAL PARTS LIST 65

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

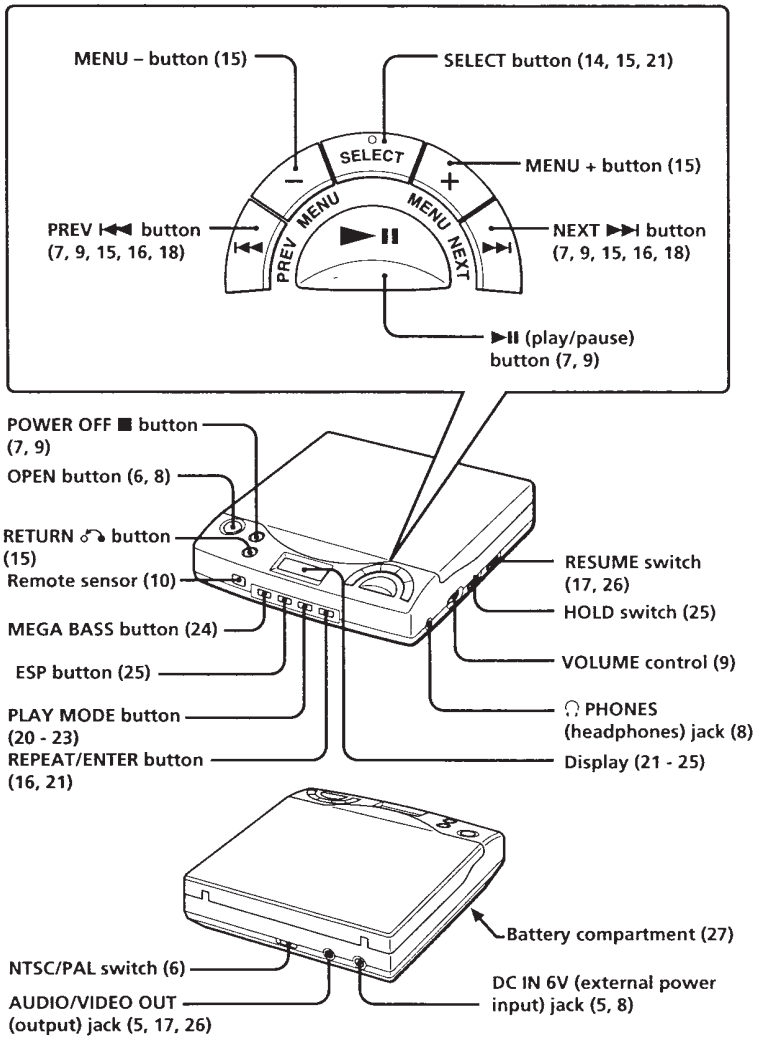
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

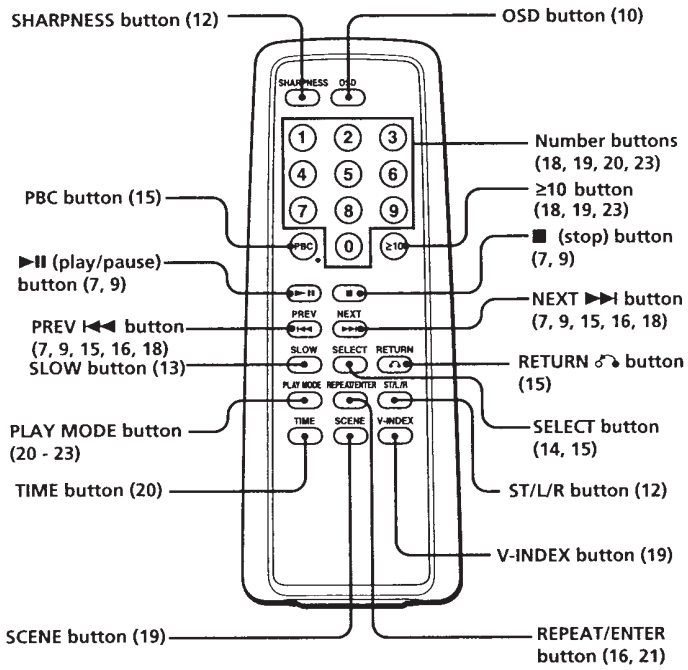
Parts identification

For explanation of the use of each part, see pages indicated in parentheses.

Main unit


MENU – button (15)
SELECT button (14, 15, 21)
MENU + button (15)
PREV ⏮ button (7, 9, 15, 16, 18)
NEXT ⏭ button (7, 9, 15, 16, 18)
⏯ (play/pause) button (7, 9)
SELECT
MENU
PREV
NEXT
POWER OFF ■ button (7, 9)
OPEN button (6, 8)
RETURN ↶ button (15)
Remote sensor (10)
MEGA BASS button (24)
ESP button (25)
PLAY MODE button (20 - 23)
REPEAT/ENTER button (16, 21)
RESUME switch (17, 26)
HOLD switch (25)
VOLUME control (9)
🎧 PHONES (headphones) jack (8)
Display (21 - 25)
Battery compartment (27)
NTSC/PAL switch (6)
AUDIO/VIDEO OUT (output) jack (5, 17, 26)
DC IN 6V (external power input) jack (5, 8)

Remote control


SHARPNESS button (12)
OSD button (10)
Number buttons (18, 19, 20, 23)
PBC button (15)
≥10 button (18, 19, 23)
■ (stop) button (7, 9)
⏯ (play/pause) button (7, 9)
NEXT ⏭ button (7, 9, 15, 16, 18)
PREV ⏮ button (7, 9, 15, 16, 18)
SLOW button (13)
RETURN ↶ button (15)
SELECT button (14, 15)
PLAY MODE button (20 - 23)
ST/L/R button (12)
TIME button (20)
V-INDEX button (19)
SCENE button (19)
REPEAT/ENTER button (16, 21)

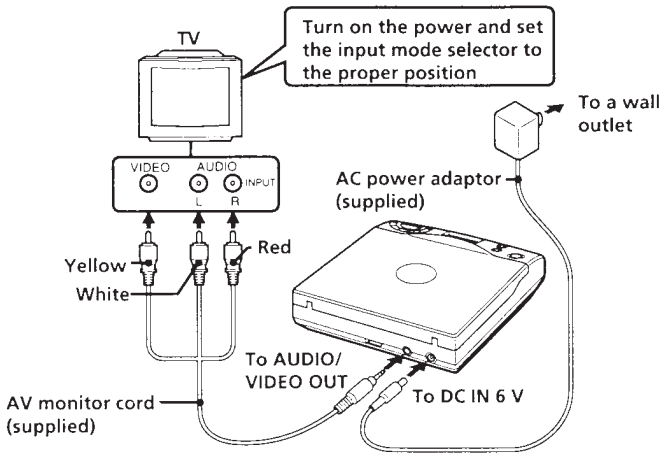
This section is extracted from instruction manual.

Playing a VIDEO CD

You can play back a VIDEO CD, using the supplied AC power adaptor. You can also use the alkaline batteries. (See "Power Source" on page 27.) To produce color pictures normally, you need to set the color system properly according to the connected TV.

1 Connect

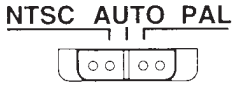
To connect a TV equipped with audio/video input jacks
Use the supplied AV monitor cord.



Continue to the next page →

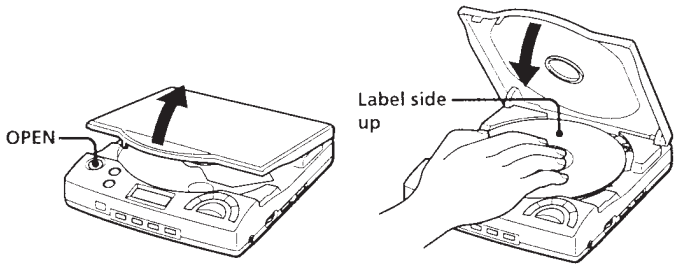
2 Set the NTSC/PAL switch to "NTSC" or "PAL" according to the color system of your TV

When your TV can select the color system automatically according to the input signals, set the switch to "AUTO".



NTSC system countries:
Japan, Korea, Taiwan, the U.S.A., etc.
PAL system countries:
China, India, Indonesia, Singapore, Malaysia, etc.

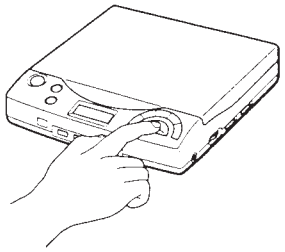
3 Place a VIDEO CD



① Press OPEN to open the lid.

② Fit the CD to the pivot and close the lid.

4 Play



To	Do this
Pause	Press ►II.
Resume play after pause	Press ►II.
Locate the next or succeeding tracks (AMS)	Press NEXT ►►I repeatedly until you find the track.
Locate the current or preceding tracks (AMS)	Press PREV I◄◄ repeatedly until you find the scene or track.
Locate a specific track directly	Press the number button of the track (remote control only)
Locate a point in the track while monitoring the picture	Press PREV I◄◄ or NEXT ►►I and hold it down until ◄◄1 or ►►1 appears on the TV screen.
Locate a point in the track quickly while monitoring the picture	While ►►1 or ◄◄1 appears on the TV screen, press PREV I◄◄ or NEXT ►►I again and hold it down until ◄◄2 or ►►2 appears on the TV screen.

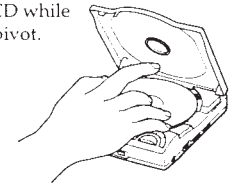
To play the CD with PBC functions, see page 15.

① Press ►II.
The player starts playing a CD.

② Adjust the volume on the equipment connected to this player. (On this player, you can adjust the volume of the signals output from the ∩ PHONES jack only.)

To stop playing, press POWER OFF ■ (or ■ on the remote control).
The player also turns off.

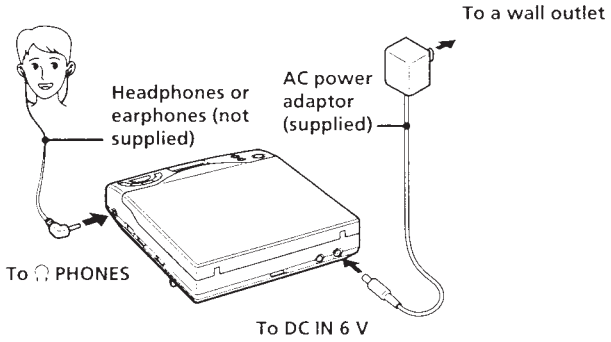
To remove the CD
Remove the CD while pressing the pivot.



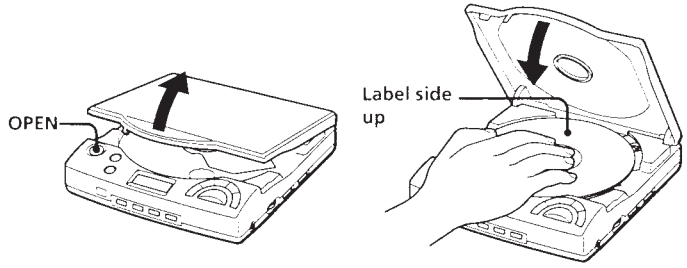
To connect to other stereo equipment
If you connect the player to the stereo equipment, you can enjoy better sound quality. For more details, see "Connecting to other stereo equipment" (page 26).

Playing an audio CD

1 Connect



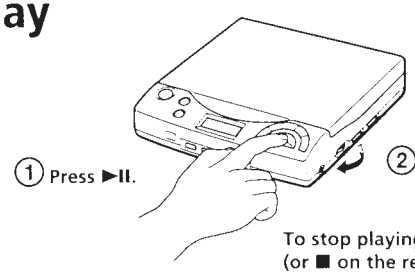
2 Place an audio CD



① Press OPEN to open the lid.

② Fit the CD to the pivot and close the lid.

Play

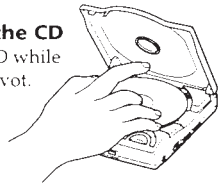


To stop playing, press POWER OFF ■ (or ■ on the remote control).
The player also turns off.

To	Press
Pause	►II
Resume play after pause	►II
Find the beginning of the current track (AMS*)	PREV I◄◄ once**
Find the beginning of previous tracks (AMS)	PREV I◄◄ repeatedly**
Find the beginning of the next track (AMS)	NEXT ►►I once**
Locate a specific track directly***	Number buttons of the track
Find the beginning of succeeding tracks (AMS)	NEXT ►►I repeatedly**
Go forward quickly	Hold down NEXT ►►I**
Go backwards quickly	Hold down PREV I◄◄ **

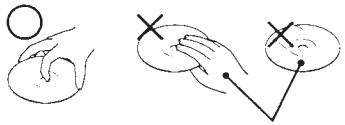
*AMS = Automatic Music Sensor
**These operations are possible during both play and pause.
***Remote control only

To remove the CD
Remove the CD while pressing the pivot.



Notes on display
- When you press ►II (when RESUME is set to OFF), the total number of tracks in the CD and the total playing time appear for about 2 seconds.
- During play, the track number and the elapsed playing time of the current track appear.
- During pause, the elapsed playing time flashes in the display.
- Between tracks, the time to the beginning of the next track will appear with the "–" indication.

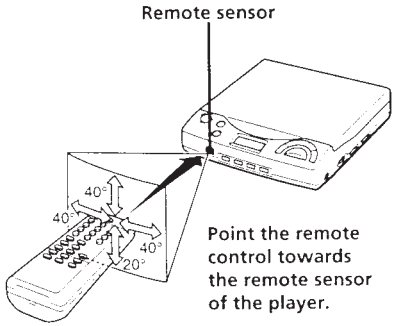
Notes on handling CDs
- To keep the CD clean, handle it by its edge. Do not touch the surface.
- Do not stick paper or tape onto the CD.
- Do not expose the CD to direct sunlight or heat sources such as hot air ducts. Do not leave the CD in a car parked under direct sunlight.



Not these ways

► *Playing VIDEO CDs in Various Modes*

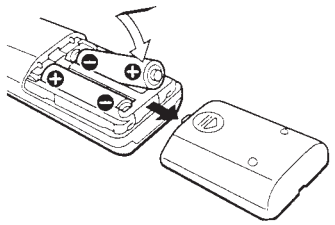
Playing VIDEO CDs using the remote control



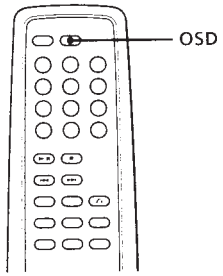
Note
- You can turn on the player by pressing ►II on the remote control within about 5 minutes after you turn it off. If 5 minutes have already passed, press ►II on the player to turn it on. (You cannot turn on the player using the remote control.)
- Do not expose the remote sensor to direct sunlight or lighting apparatuses.
- Remove any obstacles between the remote sensor on the player and the remote control.

To insert batteries into the remote control

Insert two R6 (size AA) batteries by matching the ⊕ and ⊖ on the batteries.



Displaying the operating status on the TV screen
You can check the operating status of the player and the information about the CD on the TV screen.

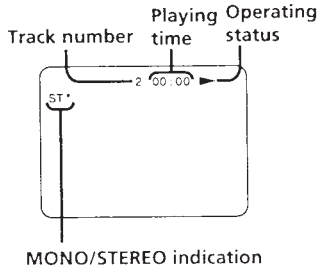


Press OSD.
Each time you press the button, the OSD (On-Screen Display) mode changes as follows:

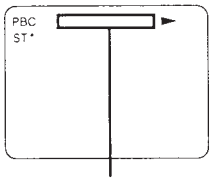
OSD AUTO → OSD ON → OSD OFF →

When "OSD AUTO" is selected, the operating status appears for a few seconds on the TV screen when you press a button or when the operating status is changed. When "OSD ON" is selected, the operating status, time display, etc. are always displayed.

■ While playing a VIDEO CD without PBC functions/while playing back with PBC OFF



■ *While playing a VIDEO CD with PBC functions*



Scene number or video index number

*Settings of the ST/L/R, SHARPNESS, etc. are displayed for about a few seconds when you change the OSD modes.

Various indications displayed on the TV screen

Indication	What it means (page)
PBC	Playing a VIDEO CD with PBC ON. (15)
SELECT	Waiting for you to select something (For instance, at the time of menu display) (15)
V INDEX	Video index search (19)
SCENE	Scene search (19)
FLASH*	In the Flash Motion mode (14)
MULTI*	In the Multi Flash mode (14)
DIGEST	In the Track Digest mode (20)
RESUME	RESUME function works (17)
NEXT XX	Next track number
PREV XX	Previous track number

Indications	What it shows (page)
►	Playing (7, 9)
II	Pausing (7,9)
I►	Slow-motion playing (13)
►►	Searching forward (18)
◄◄	Searching backward (18)
✋	The player cannot accept the operation
ST	Hearing stereo sound (12)
L	Hearing left channel sound (12)
R	Hearing right channel sound (12)
OSD OFF	OSD mode has been switched to "OSD OFF." (10)
OSD AUTO	OSD mode has been switched to "OSD AUTO." (10)
OSD ON	OSD mode has been switched to "OSD ON." (10)
PBC OFF	PBC mode has been switched to OFF. (16)
PBC ON	PBC mode has been switched to ON. (16)
NTSC	The NTSC/PAL switch is set to "NTSC". (6)
PAL	The NTSC/PAL switch is set to "PAL". (6)
AUTO**	The NTSC/PAL switch is set to "AUTO". (6)

Continue to the next page →

Indication	What it means (page)
SHARP	Picture quality is adjusted sharply. (13)
SOFT	Picture quality is adjusted softly. (13)
NORMAL	Picture quality is adjusted moderately. (13)
REP OFF	The repeat mode has been set to OFF. (16)
REP ALL***	Playing a whole CD repeatedly (16)
REP 1***	Playing the current track repeatedly (16)

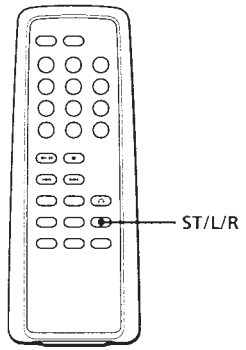
*While selecting the mode, the indication flashes. Once the mode has been selected, the indication stops flashing.
**When your TV can select the color system automatically by checking the input signals, set the switch to "AUTO". The NTSC or PAL signals will be output from this player according to the disc information of the playback CD.
***Repeat play is not available during PBC playback.

Notes

- While playing an audio CD, the OSD mode cannot be displayed on the TV screen.
- When you record the playback picture of this player on another VCR, etc., be sure to select "OSD OFF". Otherwise, the display information will also be recorded on the VCR.
- The OSD mode returns to "OSD AUTO" when you turn off the player by pressing POWER OFF ■.

Playing multiplex CDs

On multiplex CDs, different sounds are recorded for the left and right channels. You can select either the left or the right channel and hear the sound of the selected channel. In this case, the stereo effect will be lost.



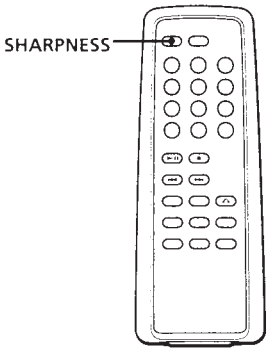
Press ST/L/R while playing a multiplex CD.
Each time you press the button, the indication and sound you hear change as follows:

Press	Indication	You will hear
Once	L	Left channel sound
Twice	R	Right channel sound
Three times	ST	Stereo sound

The initial setting is "ST".

Adjusting the picture quality (Sharpness)

You can make the picture quality more distinct or softer by pressing the SHARPNESS button.



Press SHARPNESS while playing a CD. Each time you press the button, the indication changes as follows:

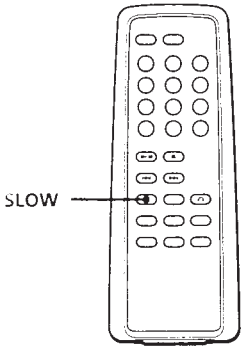
SHARP → SOFT → NORMAL

The initial setting is "NORMAL".

Playing VIDEO CDs in slow-motion

(Slow-motion Play)

You can make the play speed slower. You can select two slow speeds.



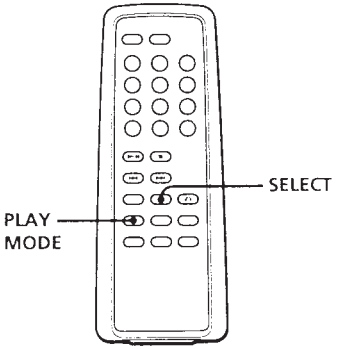
Press SLOW while playing a CD. When you press SLOW again during slow play, the play speed will be much slower.

To cancel slow-motion play, press ▶II.

When playback of the current track is finished, slow-motion play will be canceled automatically and return to normal play.

Playing in still picture mode (Flash Motion Play/Multi Flash Play)

You can change the pictures on the TV screen into the still pictures. While watching still pictures, you can hear the sound as usual.



Flash Motion Play

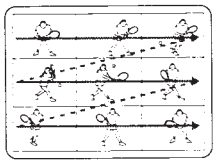
While playing a CD, press PLAY MODE twice to display "FLASH" on the TV screen and press SELECT .
The player starts playing still pictures that change continually.

To cancel Flash Motion Play, press PLAY MODE repeatedly until the play mode indication disappears from the TV screen.

When playback of the current track is finished, Flash Motion Play will be canceled automatically and return to normal play.

Multi Flash Play

While playing a CD, press PLAY MODE three times to display "MULTI" on the TV screen and press SELECT.
The player starts playing the nine still pictures at one time.The pictures change one by one.



To cancel Multi Flash Play, press PLAY MODE repeatedly until the play mode indication disappears from the TV screen.

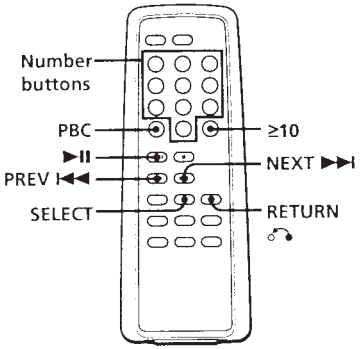
When playback of the current track is finished, Multi Flash Play will be canceled automatically and return to normal play.

Note

On some CDs, intervals of the Flash Motion Play and the Multi Flash Play are longer or unstable.

Playing VIDEO CDs with PBC functions (PBC Play)

Using the PBC functions , you can play a VIDEO CD with PBC functions (Version 2.0) (simple interactive software, software with search functions, etc.)
Refer also to the instructions supplied with the CD, as the operating procedure may differ according to the CD.



1 Insert a VIDEO CD with PBC functions (see page 5).

2 Press ►II .
PBC playback starts, and the menu appears on the TV screen.

3 Press the number buttons to select item number of the menu you want to play.
For instance, to select item number 5, press 5.
To select an item number 10 or more, press ≥10 first, then the corresponding number buttons.
Examples:
For 12: ≥10, then 1 and 2
For 24: ≥10, then 2 and 4
For 135: ≥10, ≥10, then 1 and 3 and 5

On the player

Press MENU +/ – to select the item number, then press SELECT.

4 Repeat the above procedure, following the instructions shown on the menu.

When	Press
You want to select an item number	Number button of the item you want on the remote control.
	On the player: MENU +/ – to select the item number, then SELECT.
"SELECT" is flashing on the TV screen while playing back moving pictures	Number buttons or MENU +/ – and SELECT to select another scene even while playing back moving pictures.
You want to go back to the previous menus	RETURN↶. (The actual operation varies among the CDs. Refer to the instructions supplied with the CDs.)

Note
When playing some CDs, ► SELECT (or ►) appears on the TV screen, instead of SELECT. In that case, Press SELECT on the remote control. If you press ►II, the player pauses.

To play the CD in normal play mode and cancel play using PBC functions

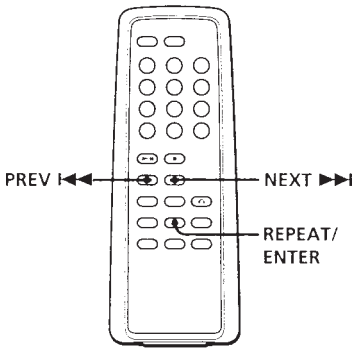
Press PBC on the remote control so that "PBC OFF" appears on the TV screen. "PBC" disappears from the display, and normal play starts (in the sequence of the track numbers). In this case, you cannot play still pictures such as menu screens.
To resume play using PBC functions, press PBC again.

When you change the PBC mode

When you change the PBC mode ("PBC ON" or "PBC OFF) and start play, the player plays the CD from the beginning.

Playing VIDEO CDs repeatedly (Repeat Play)

You can play a whole CD or a single track repeatedly.



To repeat all the tracks on a CD
While playing a CD, press REPEAT/ ENTER repeatedly until "REP ALL" appears on the TV screen.

To cancel repeat play, press REPEAT/ ENTER until "REPEAT OFF" appears on the TV screen.

To repeat a single track
While the track you want to repeat is playing, press REPEAT/ENTER until "REP 1" appears on the TV screen.

To repeat another track, press PREV I◄◄ or NEXT ►►I to select the track you want to repeat. While the track is playing, press REPEAT/ENTER.

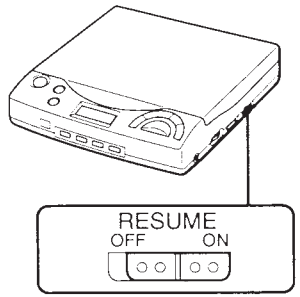
To cancel repeat play, press REPEAT/ ENTER until "REPEAT OFF" appears on the TV screen.

Note
This function is not available during PBC playback. To set PBC to OFF, see the left column.

Using other functions

To resume playing from the point you stopped the CD (Resume function)

Normally, every time you stop and play, playing starts from the beginning of the CD. Resume play, however, lets you watch from the point where you last turned off the player.



Set RESUME to ON.

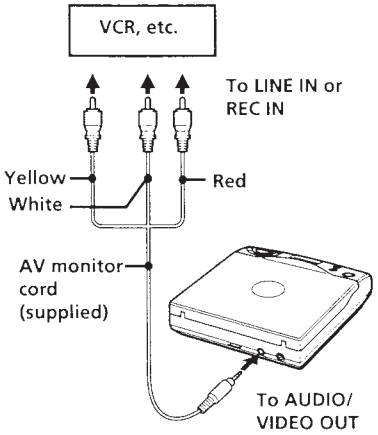
To cancel resume play, set RESUME to OFF.

Notes

- When you open the lid, the memorized resume point is erased regardless of the setting of the RESUME switch. When you play the CD the next time, it is played from the beginning.
- The resume point may be inaccurate by about 30 seconds.

Connecting to other video equipment

You can record a VIDEO CD on a video tape. Refer to the instruction manual supplied with other equipment for details.
Before making connections, turn off each equipment.



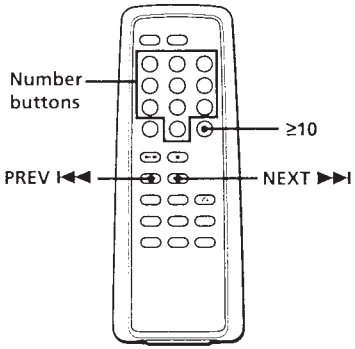
Note

- Before you play a disc, turn down the volume of the connected equipment so as not to damage the speakers.

▶ *Locating a Scene or Track in VIDEO CDs*

Locating a specific track by observing the TV screen (search)

While playing a CD, you can quickly locate any track or a specific point in a track by observing the TV screen.



To	Do this
locate the next or succeeding tracks (AMS)	Press NEXT ⏭ repeatedly until you find the track.
locate the current or preceding tracks (AMS)	Press PREV ⏮ repeatedly until you find the scene or track.
locate a specific track directly	Press the number button of the track (remote control only)
locate a point in the track while monitoring the picture	Press PREV ⏮ or NEXT ⏭ and hold it down until ◀◀1 or ▶▶1 appears on the TV screen.
locate a point in the track quickly while monitoring the picture	While ▶▶1 or ◀◀1 appears on the TV screen, press PREV ⏮ or NEXT ⏭ again and hold it down until ◀◀2 or ▶▶2 appears on the TV screen.

To directly locate a track number 10 or more

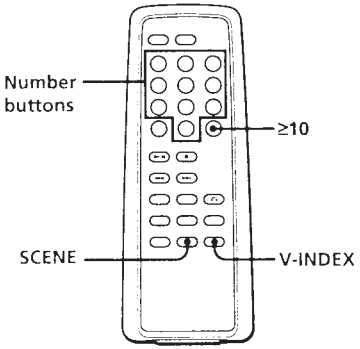
To select an item number 10 or more, press ≥10 first, then the corresponding number buttons.
Examples:
For 12: ≥10, then 1 and 2
For 24: ≥10, then 2 and 4
For 135: ≥10, ≥10, then 1 and 3 and 5

Locating a specific point directly

You can locate a specific point directly using the video index, scene numbers and the time of the point.

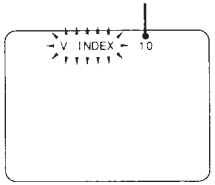
To locate a specific point using the video index numbers or the scene numbers (Video Index Search/ Scene Number Search)

SomeVIDEO CDs with PBC functions have the video index numbers or the scene numbers. Some CDs have both. Check the current video index number or scene number by displaying it on the TV screen during playback (see page 11).

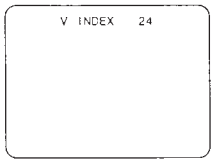


1 Press V-INDEX or SCENE while playing a CD.
"V INDEX"or "SCENE" appears on the TV screen.

The current video index number or scene number



2 Press the number buttons to select the video index number or the scene number you want.
The selected video index number or the scene number appears on the TV screen.



To select a number 10 or more, press ≥10 first, then the corresponding number buttons.
Examples:
For 12: ≥10, then 1 and 2
For 24: ≥10, then 2 and 4
For 135: ≥10, ≥10 then 1 and 3 and 5

If you have made a mistake

Repeat the same procedure from Step 1 again.

To cancel the video index search or scene number search

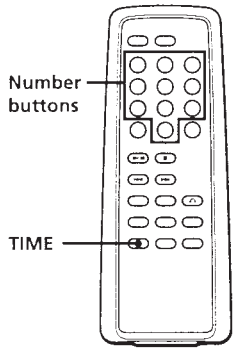
Press V-INDEX or SCENE again.

Notes

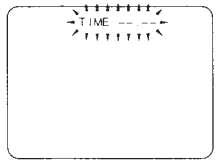
- Some CDs do not allow you to start playing from a particular scene. If you select a scene number while playing a CD of this type, the selected scene number disappears from the TV screen, and the player keeps playing the current scene.
- You cannot use the Scene Search with tracks or CDs which do not have scene numbers recorded.
- If you select the scene which has audio signals only, the scene will not be displayed on the TV screen.
- You cannot use Video Index Search with tracks or CDs which do not have video index numbers recorded.
- You cannot search for video index numbers in different tracks.

To locate a specific point by inputting the time of the point (Time Jump Search)

You can locate a specific point directly by inputting the time of the point you want to find.



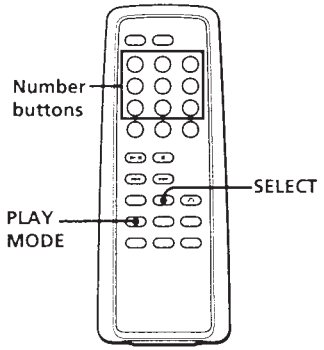
1 Press TIME while playing a CD.
"TIME"and "– – : – –" appear on the TV screen.



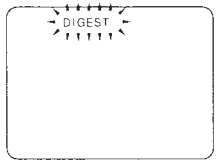
2 Press the number buttons to input the time of the point you want to find.
The picture of the selected time appears on the TV screen.

To locate a specific point by observing nine scenes in the current track at one time (Track Digest Search)

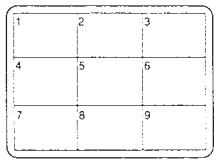
You can locate a specific point directly by observing nine scenes in the current track at one time.



1 While playing a CD, press PLAY MODE until "DIGEST" appears on the TV screen.



2 Press SELECT.
The player separates the current track into nine parts automatically, and displays the first picture of each part on the TV screen numbering each picture 1 to 9.

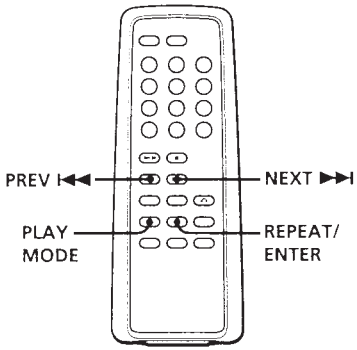


3 Press the number button of the picture you want to see.
The player starts playing from the part you selected.

▶ *Playing Audio CDs in Various Modes*

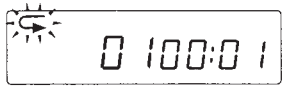
Playing tracks repeatedly (Repeat Play)

You can play tracks repeatedly in normal, INTRO PGM, shuffle or RMS (Random Music Sensor) play modes. Repeat all the tracks or only one track.



To repeat all the tracks

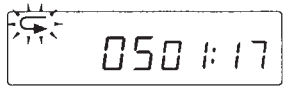
Press REPEAT/ENTER during play. The "↻" indication appears.



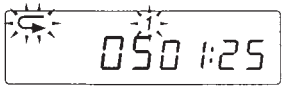
To cancel repeat play, press REPEAT/ ENTER again.

To repeat a single track

1 Press REPEAT/ENTER while the track you want to repeat is playing. The "↻" indication appears.



2 Press PLAY MODE repeatedly until "1" appears.

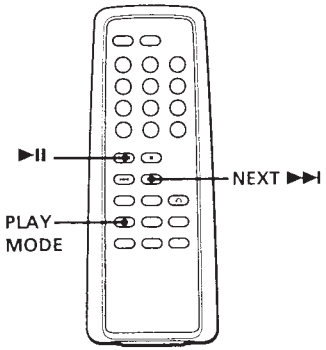


To repeat another track, press PREV ⏮ or NEXT ⏭.

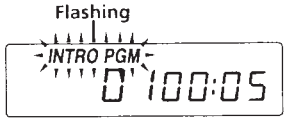
To cancel repeat play, press REPEAT/ ENTER again.

Playing only the tracks you want (INTRO PGM Play)

You can choose and play your favorite tracks by scanning through the beginning of each track in a CD.



1 During play, press PLAY MODE repeatedly until "INTRO PGM" flashes.



2 Press ▶II to start scanning. The player plays about the first 15 seconds of each track and "INTRO PGM" flashes faster.

3 Press REPEAT/ENTER while the track you want is playing. To skip the track, press NEXT ⏭ or just wait for the next track.

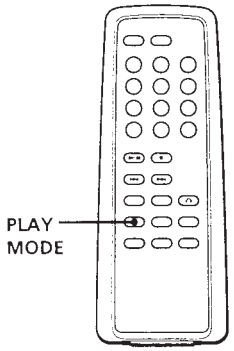
After you have gone through the CD, "INTRO PGM" stops flashing and the tracks you have chosen play automatically.

To finish programming before going through the whole CD, press ▶II. The selected tracks will be played.

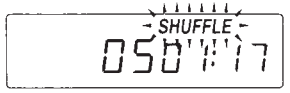
To cancel INTRO PGM play, press PLAY MODE repeatedly until the play mode indication disappears from the display.

Playing tracks in random order
(Shuffle Play)

You can play the tracks in a CD in random order.



During play, press PLAY MODE repeatedly until "SHUFFLE" appears. The tracks play in random order.



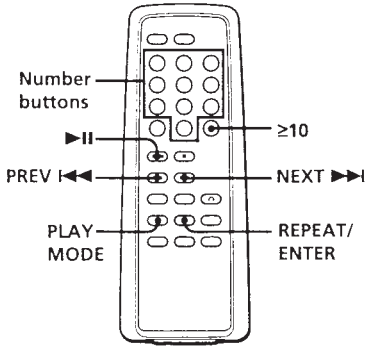
To cancel shuffle play, press PLAY MODE repeatedly until the play mode indication disappears from the display.

Notes

- During shuffle play, you cannot return to previous tracks by pressing PREV ⏮.
- If you locate a specific track using the number button on the remote control, shuffle play is canceled.

Playing tracks in the order you want
(RMS Play)

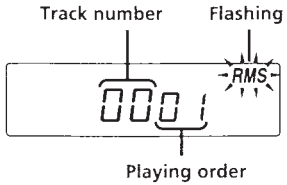
You can program up to 22 tracks to play in any order you choose.



1 During play, press PLAY MODE repeatedly until "RMS*" flashes.

*RMS = Random Music Sensor

2 Press the number buttons (or PREV ⏮ or NEXT ⏭ and REPEAT/ ENTER) to choose a track.
The track number and the playing order appear.



Continue to the next page →

To select an item number 10 or more, press ≥10 first, then the corresponding number buttons.
Examples:
For 12: ≥10, then 1 and 2
For 24: ≥10, then 2 and 4
For 135: ≥10, ≥10, then 1, 3 and 5

3 Repeat steps 2 to program the remaining tracks.

4 Press ►II.
"RMS" stops flashing and the tracks you have chosen play in the order you specified.

To cancel RMS play, press PLAY MODE until "RMS" disappears.

To check the program

During programming:
Press REPEAT/ENTER before step 4.
During RMS play:
Press PLAY MODE repeatedly until "RMS" flashes, then press REPEAT/ ENTER.
Each time you press REPEAT/ENTER, the track number and the playing order appear in the order you specified.

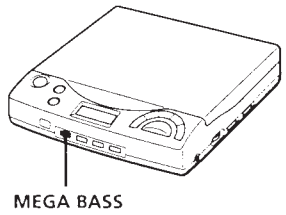
Note

- If you program another track after the 22nd track, the first track programed is cleared and the new track is programed instead.

Using other functions

To enjoy more powerful bass sound (MEGA BASS function)

You can enjoy a powerful bass-boosted sound.



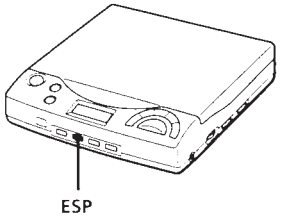
Press MEGA BASS to select "BASS ▂" or "BASS ▃." "BASS ▃" is more effective.

Note

- If the sound is distorted when emphasizing bass, turn down the volume.

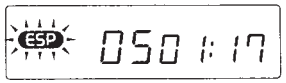
To prevent sound from skipping (ESP)

The ESP (Electronic Shock Protection) function prevents the sound from skipping by using a buffer memory that stores music data for about 10 seconds. Use this function when listening in a car or during a walk.



Press ESP.
The ESP indication appears.

To release the ESP function, press ESP again.

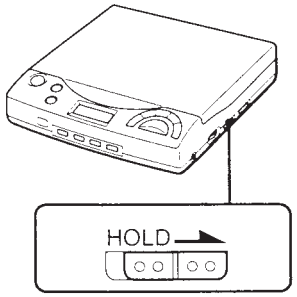


Notes

- Playing may stop when the player gets a strong shock even with the ESP function on.
- You may hear a noise or sound skip when:
  — listening to a dirty or scratched CD,
  — listening to an audio test CD or,
  — the player receives continuous shock.
- Sound may be intermittent for a while if you press ESP during play.
- While playing the VIDEO CD, the ESP function is disabled.

To lock the buttons (HOLD function)

You can lock your player against any accidental operations.
You can still operate the player with the remote control.

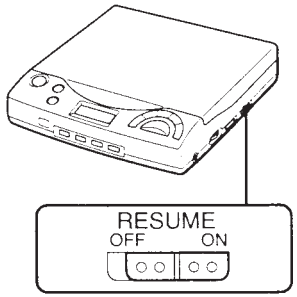


Slide HOLD in the direction of the arrow. When you press any button, "Hol d" appears in the display and you cannot operate the player.

To unlock, slide HOLD back.

To resume playing from the point you stopped the CD (Resume function)

Normally, every time you stop and play, playing starts from the beginning of the CD. The resume play function, however, let you listen to from the point where you last turned off the player.



Set RESUME to ON.

To cancel resume play, set RESUME to OFF.

Notes

- Even if RESUME is set to ON, playing starts from the beginning when you open the lid.
- The resume point may be inaccurate by about 30 seconds.

To turn off the beep

You can turn off the beep that sounds as you operate your player.

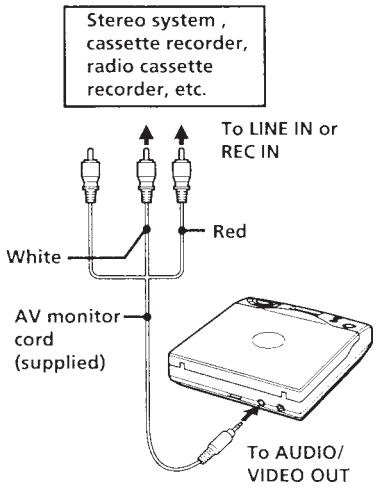
Disconnect the power source (AC power adaptor or alkaline batteries). While you press and hold down ■, connect the power source again. To make the beep sound again, disconnect the power source, and then connect it without pressing ■.

Note

- While playing the VIDEO CD, the beep does not sound.

Connecting to other stereo equipment

You can play back a CD through other stereo equipment or record a CD on a cassette tape or video tape. Refer to the instruction manual supplied with other equipment for details.
Before making connections, turn off each equipment.


Stereo system , cassette recorder, radio cassette recorder, etc.
To LINE IN or REC IN
Red
White
AV monitor cord (supplied)
To AUDIO/ VIDEO OUT

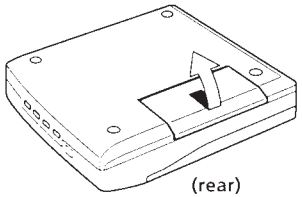
Notes

- Before you play the CD, turn down the volume of the connected equipment so as not to damage the connected speakers.
- The beep sound is not output from the AUDIO/VIDEO OUT jack.
- You cannot adjust the volume of output signals from the AUDIO/VIDEO OUT jack on this player.
- When you record a CD on a cassette tape using a tape recorder that has the blank search function, release the ESP function. If the ESP function is on, the blank search function does not work.

▶Power Source

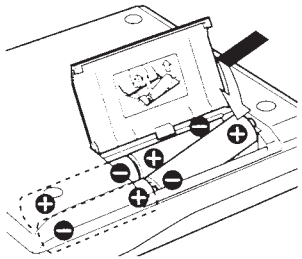
Using alkaline batteries

1 Open the lid of the battery compartment.



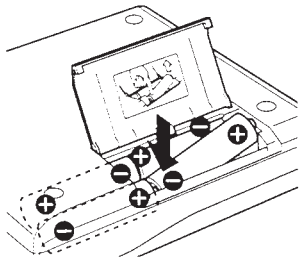
(rear)

2 Insert four LR6 (size AA) alkaline batteries by matching the ⊕ and ⊖ to the diagram inside the battery compartment and close the lid.



To take out the batteries

Press the ⊖ side of the battery as shown.



When to replace the dry batteries

If the batteries are used up, "Lo batt" appears in the display. Replace all the batteries with new ones.

Battery life

When you use the player on a flat and stable place.

(Approx. hours)

Audio CD ESP function		VIDEO CD
On	Off	
15	16	3.5

Notes

To prevent the battery leakage or bursting, keep the following notes:

- Do not charge the dry batteries.
- Do not mix new batteries with old ones.
- Do not use different types of batteries together.
- Do not use manganese batteries for this unit.
- When the batteries are not to be used for a long time, remove them.

Note

- When you use the player on batteries, the back light of the display does not light.

▶Additional Information

Precautions

On safety

- As the laser beam used in this player is harmful to the eyes, do not attempt to disassemble the casing. If you press ▶II when a CD is not in place, you will see the laser beam. However, the laser beam seen through the lid is not harmful.
- Do not put any foreign objects in the DC IN 6 V (external power input) jack.
- Should any solid objects or liquid fall into the unit, unplug it and have it checked by qualified personnel before operating it any further.

On power sources

- When you are not using the player for a long time, disconnect all power sources from the unit.
- The nameplate indicating operating voltage, power consumption, etc. is located on the bottom.

On the AC power adaptor

- Use only the supplied AC power adaptor or recommended AC power adaptor AC-E60HG. Do not use any other AC power adaptor.

Polarity of the plug

- To unplug the AC power adaptor from the wall outlet, grasp the adaptor itself, do not pull its cord.

On dry batteries

- Do not throw the batteries into fire.
- Do not carry the batteries with coins or other metallic objects. It can generate heat if the positive and negative terminals of the batteries are accidentally contacted with a metallic object.

On the player

- Keep the lens on the player clean and do not touch it. If you do so, the lens may be damaged and the player will not operate properly.
- Do not put any heavy object on top of the player. The player and the CD may be damaged.
- Do not leave the player in a location near heat sources, or in a place subject to direct sunlight, excessive dust or sand, moisture, rain, mechanical shock, unleveled surface, or in a car with its windows closed.
- If the player causes interference to the radio reception, turn off the player or move it away from the radio.
- Do not wrap the player in a cloth or blanket during use as it may cause malfunction or serious accidents.

On headphones/earphones

Road safety

Do not use headphones/earphones while driving, cycling, or operating any motorized vehicle. It may create a traffic hazard and is illegal in some areas. It can also be potentially dangerous to play your headsets at high volume while walking, especially at pedestrian crossings. You should exercise extreme caution or discontinue use in potentially hazardous situations.

Preventing hearing damage

Avoid using headphones/earphones at high volume. Hearing experts advise against continuous, loud and extended play. If you experience a ringing in your ears, reduce volume or discontinue use.

Caring for others

Keep the volume at a moderate level. This will allow you to hear outside sounds and to be considerate to the people around you.

SECTION 2
SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Before Replacing the Optical Pick-Up Block

Please be sure to check thoroughly the parameters as par the "Optical Pick-Up Block Checking Procedures" (Part No.: 9-960-027-11) issued separately before replacing the optical pick-up block. Note and specifications required to check are given below.

- FOK output: IC601 ⑨③ pin (FOK)
  When checking FOK, remove the lead wire to disc motor.
- S curve P-to-P value: 2.0 Vp-p IC501 ⑯ pin
  When checking S curve P-to-P value, remove the lead wire to disc motor.
- RF signal P-to-P value: 0.8-1.2 Vp-p
- Traverse signal P-to-P value: 0.7-1.7 Vp-p
- The repairing grating holder is impossible.

Precautions for Checking Emission of Laser Diode

Laser light of the equipment is focused by the object lens in the optical pick-up so that the light focuses on the reflection surface of the disc.
Therefore, be sure to keep your eyes more than 30 cm apart from the object lens when you check the emission of laser diode.

Laser Diode Checking Methods

During normal operation of the equipment, emission of the laser diode is prohibited unless the upper lid is closed while turning ON the S401 (push switch type).
The following two checking methods for the laser diode are operable.

- **Method-1 (In the service mode or normal operation): Emission of the laser diode is visually checked.**

1. Open the upper lid.
2. Push the S401 as shown in Fig. 1.
3. Press the ▷II key
4. Check the object lens for confirming normal emission of the laser diode. If not emitting, there is a trouble in the automatic power control circuit or the optical pick-up.
   During normal operation, the laser diode is turned ON about 2.5 seconds for focus searching.

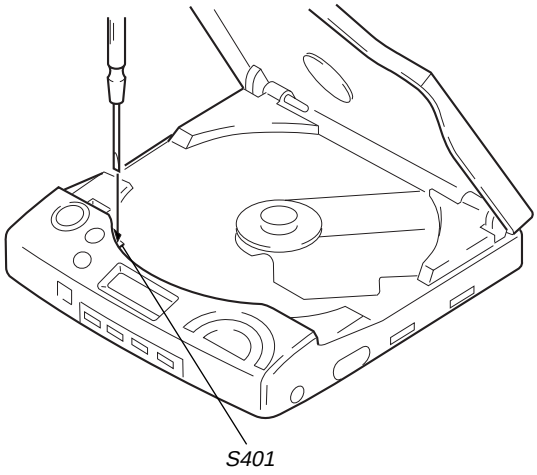
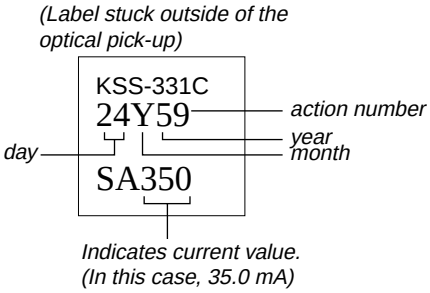


Fig. 1 Method to push the S401

- **Method-2 (In service mode or normal operation): Check the value of current flowing in the laser diode.**

1. Remove the upper cabinet.
2. Read the current printed on the label attached on the rear side of the optical pick-up.



A current value will vary depending on the set.

3. Connect a digital voltmeter as shown in Fig. 2.
4. Press the ▷II key.
5. Calculate current value by the reading of the digital voltmeter. Reading of the digital voltmeter (V) ÷ 4.7 (Ω) = current value (A) (Example) Reading of the digital voltmeter of 0.1645 V: 0.1645 V ÷ 4.7 Ω = 0.035 (A) = 35 mA
6. Check that the current value is within the following range.
   - Current value of the label $^{+5}_{-11}$ mA (25˚C)
     Variation by temperature: 0.4 mA/˚C
     Current increases with temperature increased.
     Current decreases with temperature decreased.

   If the current is more than the range above, there is a trouble in the automatic power control circuit or the laser diode is in deterioration.
   If less than the range, a trouble exists in the automatic power control circuit or the optical pick-up.

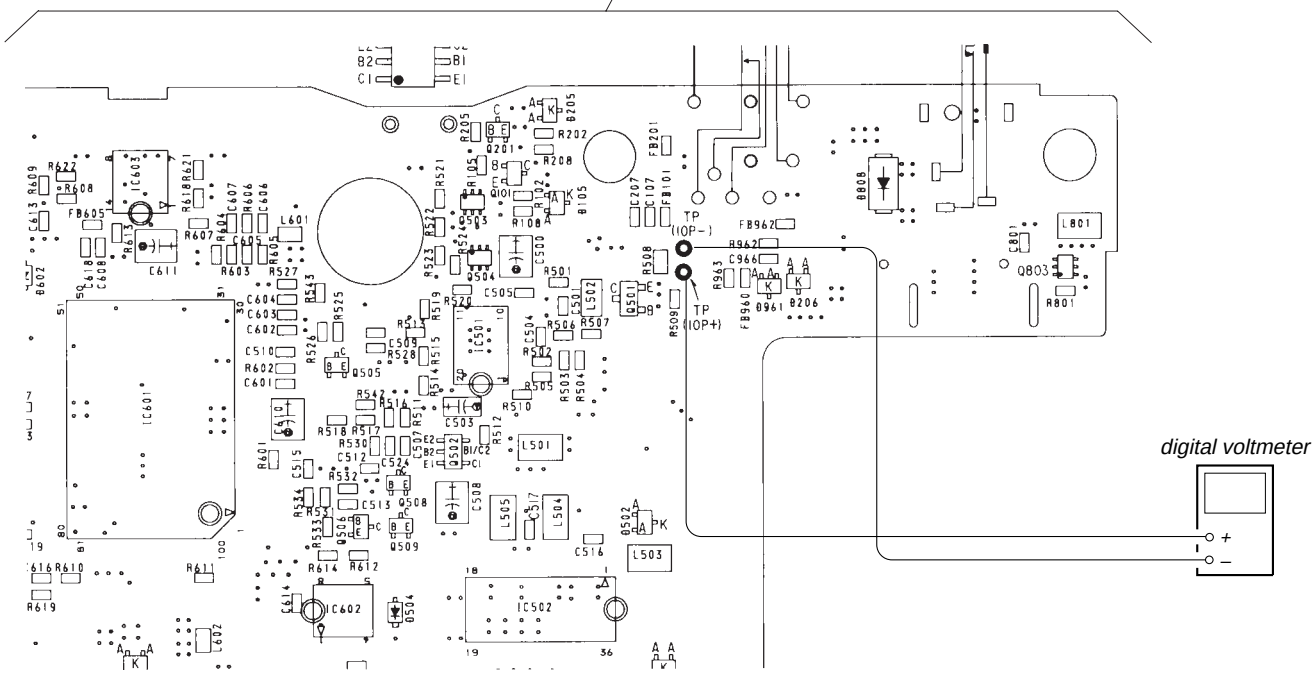
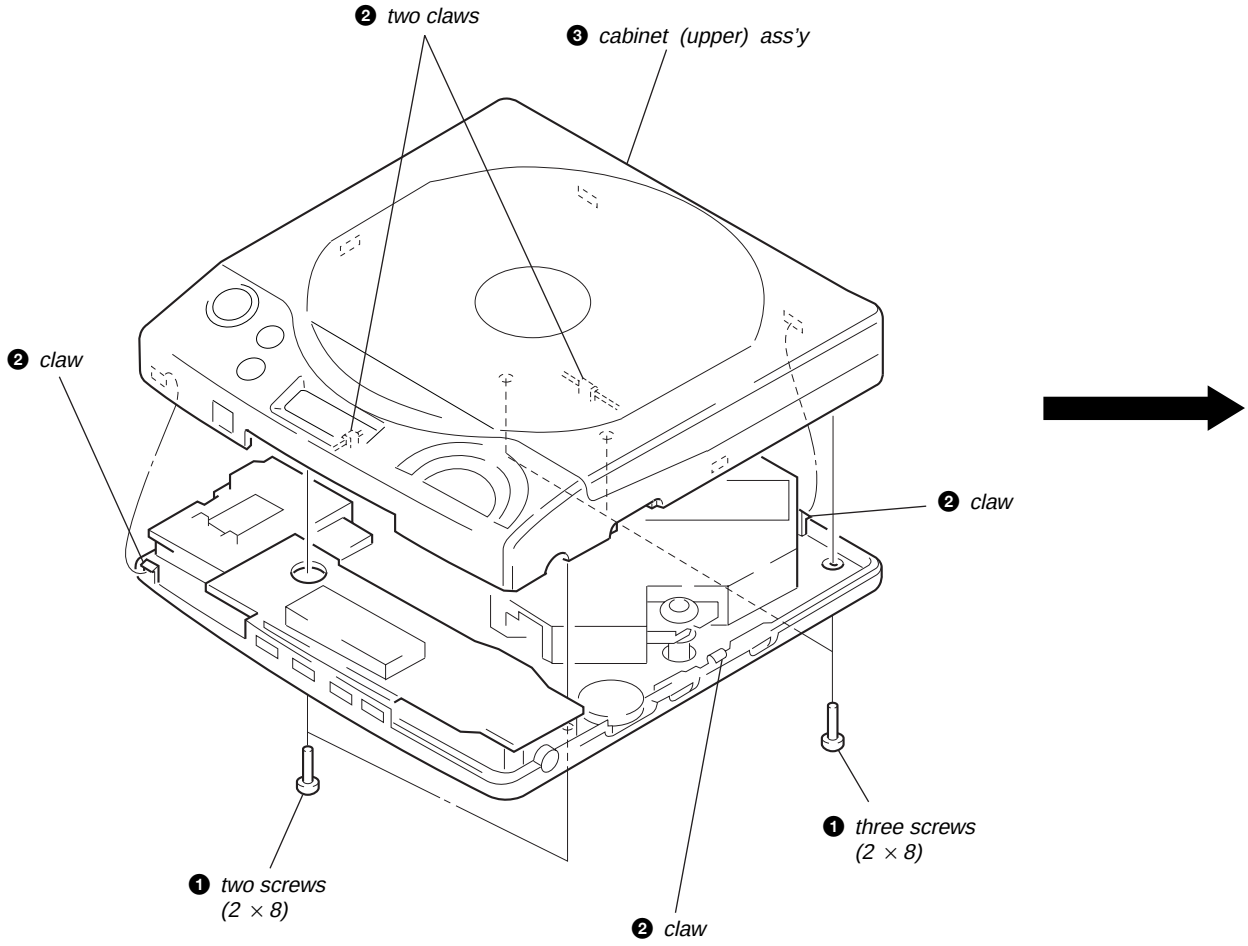


Fig. 2 Digital voltmeter connecting location

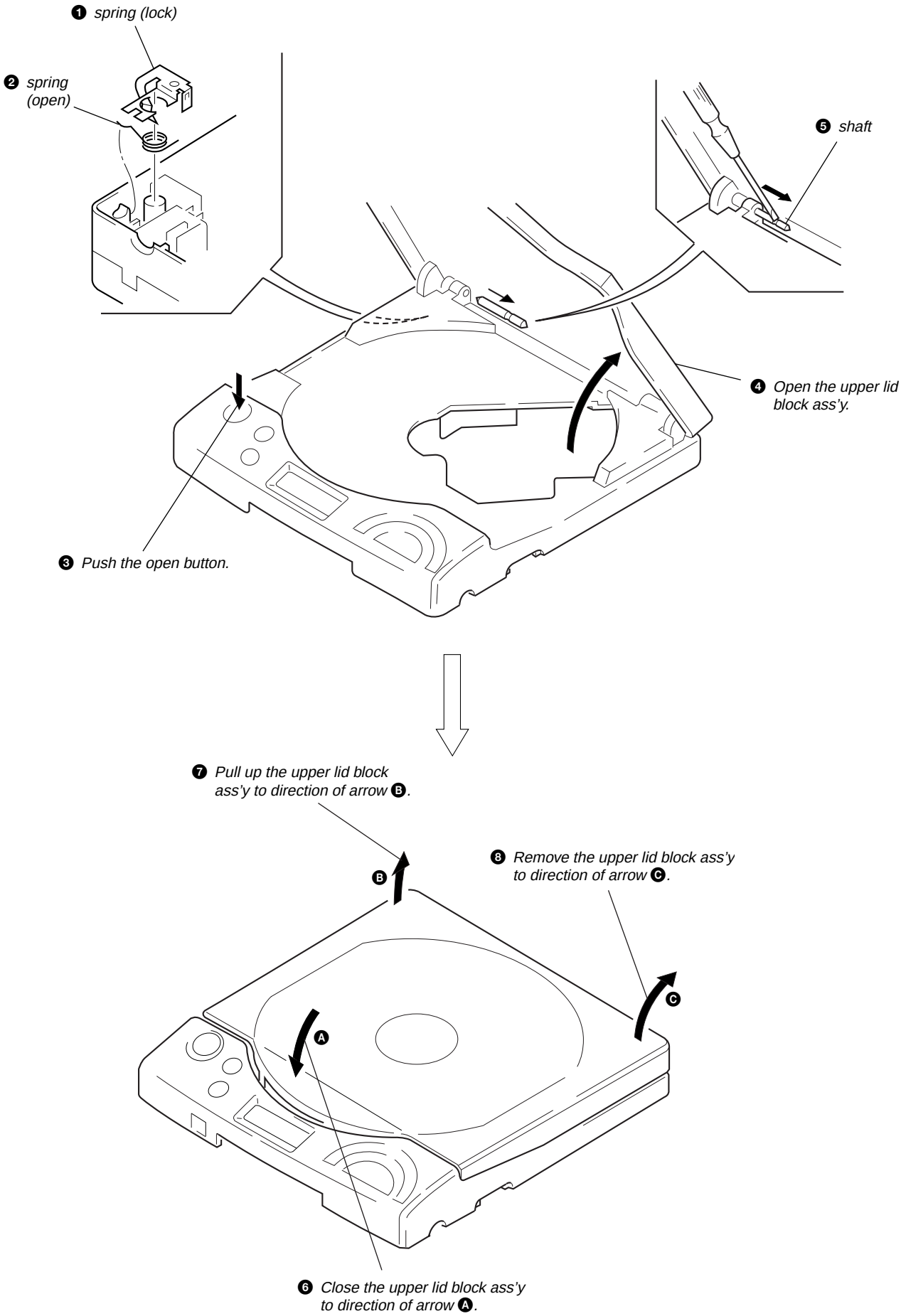
SECTION 3
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

3-1. CABINET (UPPER) ASS'Y



3-2. UPPER LID BLOCK ASS'Y


❶ spring (lock)
❷ spring (open)
❸ Push the open button.
❹ Open the upper lid block ass'y.
❺ shaft
❻ Close the upper lid block ass'y to direction of arrow Ⓐ.
❼ Pull up the upper lid block ass'y to direction of arrow Ⓑ.
❽ Remove the upper lid block ass'y to direction of arrow Ⓒ.
Ⓐ
Ⓑ
Ⓒ

SECTION 4
SERVICE MODE (TEST MODE)

• In this set, there are two test modes; CD-DA Test Mode and VIDEO CD Test Mode.

4-1. How to Enter the Test Mode

1. Disconnect external power (no current is applied to the set).
2. Bridge the SOL701 (TEST) on the MAIN Board with a solder. (IC701 ⑨⑤ ($\overline{\text{TEST}}$) pin is shorted to the ground.)
3. Connect the external power.
4. The CD-DA Test Mode is activated. (LCD display varies in 5-ways, and its 5-way display is repeated.)
5. Before connecting external power in step 3, if □ (POWER OFF) key was pressed, the mode is switched to VIDEO CD Test Mode.
   (On the LCD, all segments are displayed, and the TV monitor becomes 100% white.)

4-2. How to Release the Test Mode

1. Always disconnect external power, and break the solder bridge of SOL701 ($\overline{\text{TEST}}$) on the MAIN Board.
2. Thus, the set become ready for normal operation.

4-3. Each key Function in Test Mode

1. CD-DA Test Mode

Switches	Description
□ (POWER OFF)	Stop processing
▷II (PLAY/PAUSE)	Press once: Initialize, Average Correct Press twice: Auto Focus Press 3 times: Focus Auto Gain Press 4 times: Tracking Auto Gain Press 5 times: All Servo ON, Mute OFF
○ SELECT	Repeat once more the processing currently selected with ▷II (PLAY/PAUSE) key.
▷▷I (NEXT)	Move optical pick-up toward outside track
I◁◁ (PREV)	Move optical pick-up toward inside track
↶ (RETURN)	Turn off the Mute
ESP	Turn on/off the ESP (fast speed play, when ON)
REPEAT/ ENTER	Tracking Gain up/normal switching
+ MENU	Raise K13* by one step after Focus Auto Gain Raise K23** by one step after Tracking Auto Gain
− MENU	Lower K13* by one step after Focus Auto Gain Lower K23** by one step after Tracking Auto Gain

* Coefficient of Focus Gain
** Coefficient of Tracking Gain

2. VIDEO CD Test Mode

Switches	Description
□ (POWER OFF)	Go to CD-DA Test Mode
○ SELECT	Video system reset (return to 100% white screen)

– MAIN Board – (Side A)

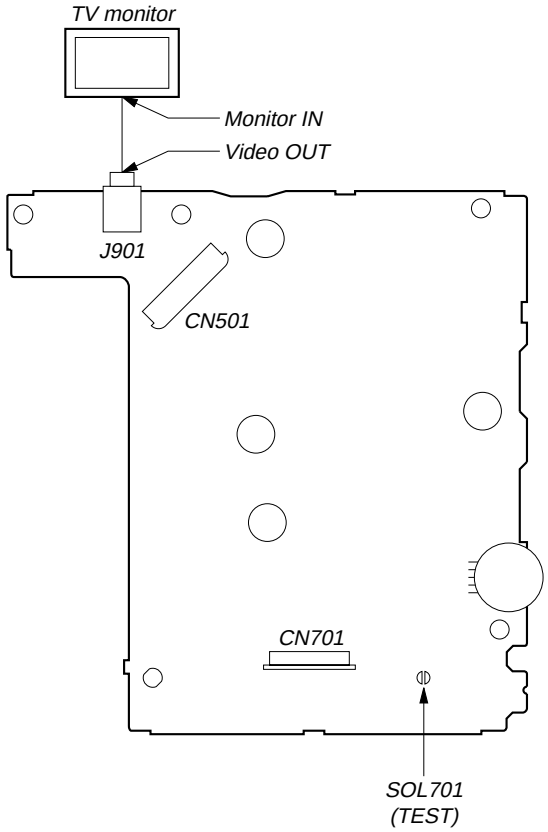


Fig. 1 Test terminal location and connecting position

SECTION 5
ELECTRICAL ADJUSTMENTS

5-1. Precautions for Adjustment

1. Before beginning adjustment, set the equipment to service mode.
   After the completion of adjustment, be sure to reset the service mode.
   For more information, see "Service Mode (Test Mode)" on page 20.
2. Perform adjustments in the order given.
3. Use YEDS-18 disc (Part No.: 3-702-101-01) unless otherwise indi- cated.
4. Power supply voltage requirement: DC6 V
   HOLD switch : OFF
   VOLUME control : Minimum
   RESUME switch : OFF

5-2. Before Beginning Adjustment

Set the equipment to service mode (See page 20) and check the following. If there is an error, repair the equipment.

• **Checking of the sled motor**

1. Open the upper lid.
2. Press the ▷II key once.
3. Press the ▷▷| and |◁◁ keys and check that the optical pick-up can move smoothly without sluggishness or abnormal noise in innermost periphery → outermost periphery → innermost periphery.
   ▷▷| : The optical pick-up moves outwardly.
   |◁◁ : The optical pick-up moves inwardly.

• **Checking of focus searching**

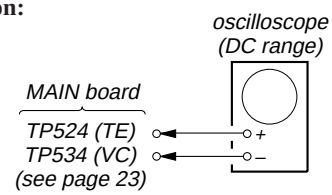
1. Open the upper lid.
2. Press the ▷II key thrice. (Focus searching operation is activated continuously.)
3. Check the object lens of the optical pick-up for smooth up/down motion without sluggishness or abnormal noise.
4. Press the □ key.
   Check that focus searching operation is deactivated. If not, again press the □ key slightly longer.

5-3. Tracking Balance Check

Condition:

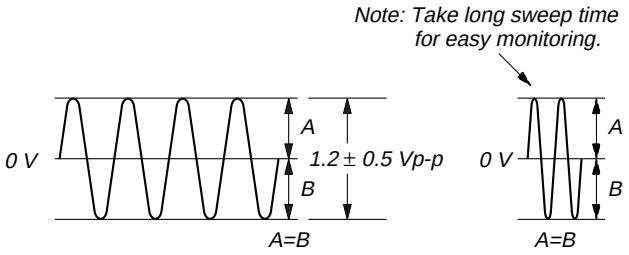
• Hold the set in horizontal state.

Connection:



Checking Method:

1. Connect the oscilloscope to TP524 (TE) and TP534 (VC) on the MAIN board.
2. Set the equipment to service mode stop state. (See page 20.)
3. Press the ▷II key once.
4. Move the optical pick-up to the center by pressing the ▷▷| and |◁◁ keys.
5. Put the disc (YEDS-18).
6. Press the ▷II key twice.
   [From focus searching, focus is turned ON while entering CLV drawing-in mode. Tracking and sled are turned OFF.]
7. Confirm that a waveform on the oscilloscope is vertically symmetric against 0 V.



8. Stop removing of the disc motor by pressing the □ key.
9. After the completion of check, reset service mode. (See page 20.)

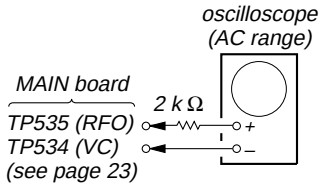
Connection Location: MAIN board (See page 23.)

5-4. Focus Bias Check

Condition:

• Hold the set in horizontal state.

Connection:



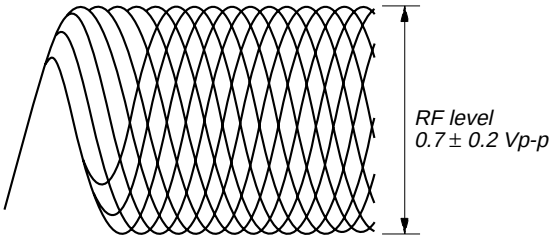
Checking Method:

1. Connect the oscilloscope to TP535 (RFO) and TP534 (VC) on the MAIN board.
2. Set the equipment to service mode stop state. (See page 20.)
3. Press the ▷II key once.
4. Move the optical pick-up to the center by pressing the ▷▷I and I◁◁ keys.
5. Put the disc (YEDS-18).
6. Press the ▷II key four times.

   [From focus searching, focus is turned ON while entering CLV drawing-in mode. Both tracking and sled are turned ON.]
7. Check the oscilloscope waveform is as shown below. A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.

RF SIGNAL REFERENCE WAVEFORM (EYE PATTERN)

VOLT/DIV : 200 mV (With the 10:1 probe in use)
TIME/DIV: 500 ns

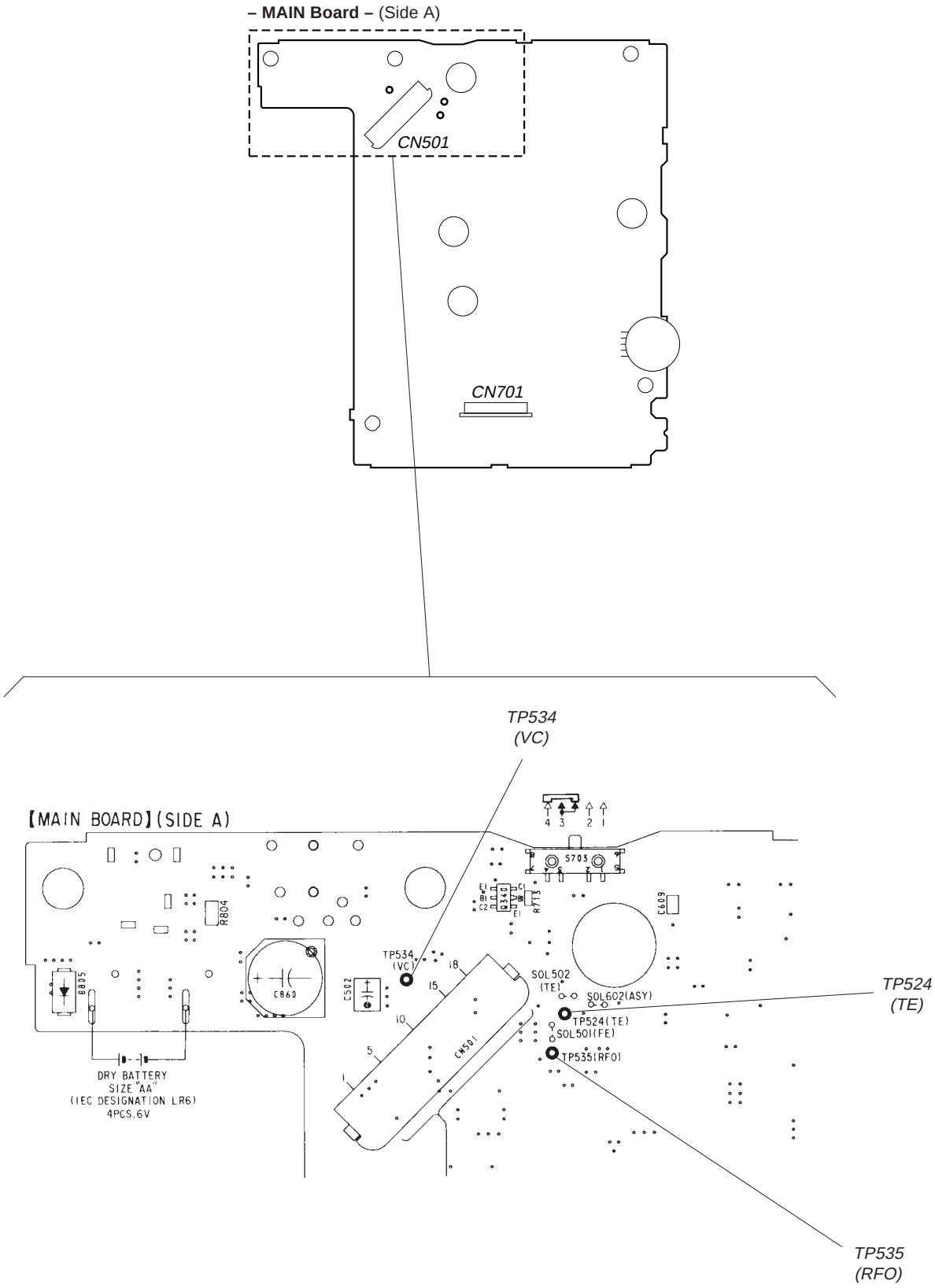


To watch the eye pattern, set the oscilloscope to AC range and increase the vertical sensitivity of the oscilloscope for easy watching.

8. Stop revolving of the disc motor by pressing the □ key.
9. After the completion of check, reset service mode. (See page 20.)

Connection Location: MAIN board (See page 23.)

Connection Location



SECTION 6
DIAGRAMS

6-1. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD (1/2) IC601 CXD2545Q
(DIGITAL SIGNAL PROCESSOR, FOCUS/TRACKING/SLED SERVO, EFM COMPARATOR)

Pin No.	Pin Name	I/O	Function
1	SRON	O	Sled servo drive PWM signal output terminal Not used (open)
2	SRDR	O	Sled servo drive PWM signal (–) output to the MPC17A38ZVMEL (IC502)
3	SFON	O	Sled servo drive PWM signal output terminal Not used (open)
4	TFDR	O	Tracking servo drive PWM signal (–) output to the MPC17A38ZVMEL (IC502)
5	TRON	O	Tracking servo drive PWM signal output terminal Not used (open)
6	TRDR	O	Tracking servo drive PWM signal (+) output to the MPC17A38ZVMEL (IC502)
7	TFON	O	Tracking servo drive PWM signal output terminal Not used (open)
8	FFDR	O	Focus servo drive PWM signal (+) output to the MPC17A38ZVMEL (IC502)
9	FRON	O	Focus servo drive PWM signal output terminal Not used (open)
10	FRDR	O	Focus servo drive PWM signal (–) output to the MPC17A38ZVMEL (IC502)
11	FFON	O	Focus servo drive PWM signal output terminal Not used (open)
12	VCOO	O	Oscillator circuit output terminal for analog PLL of the playback EFM
13	VCOI	I	Oscillator circuit input terminal for analog PLL of the playback EFM
14	TEST	I	Input terminal for the test (fixed at “L”)
15	DVSS	—	Ground terminal (digital system)
16	TES2	I	Input terminal for the test (fixed at “L”)
17	TES3	I	Input terminal for the test (fixed at “L”)
18	PDO	O	Charge-pump output terminal for analog PLL of the playback EFM Not used (open)
19	VPCO	O	PLL charge-pump output terminal for the variable pitch Not used (open)
20	VCKI	I	Master clock signal (16.9344 MHz) input from the D/A converter (IC320) for the variable pitch
21	AVD2	—	Power supply terminal (+3.3V) (analog system)
22	IGEN	I	Power supply terminal (+3.3V) (for operational amplifier)
23	AVS2	—	Ground terminal (analog system)
24	ADIO	I	Input terminal for the A/D converter Not used (open)
25	RFC	O	Output terminal of the operational amplifier Not used (open)
26	RFDC	I	RF signal (DC level) input terminal for the digital servo process
27	TE	I	Tracking error signal input from the CXA1791N (IC501)
28	SE	I	Sled error signal input from the CXA1791N (IC501)
29	FE	I	Focus error signal input from the CXA1791N (IC501)
30	VC	I	Middle point voltage (+1.65V) input from the CXA1791N (IC501)
31	FILO	O	Filter output terminal for master clock of the playback master PLL
32	FILI	I	Filter input terminal for master clock of the playback master PLL
33	PCO	O	Phase comparison output terminal for master clock of the playback EFM master PLL
34	CLTV	I	Internal VCO control voltage input of the playback master PLL
35	AVS1	—	Ground terminal (analog system)
36	RFAC	I	RF signal (AC level) input terminal for the EFM demodulator
37	BIAS	I	Constant current input terminal of the playback EFM asymmetry circuit
38	ASYI	I	Playback EFM asymmetry comparator voltage input terminal
39	ASYO	O	Playback EFM full-swing output terminal
40	AVD1	—	Power supply terminal (+3.3V) (analog system)
41	DVDD	—	Power supply terminal (+3.3V) (digital system)
42	ASYE	I	Playback EFM asymmetry circuit on/off selection input terminal (fixed at “H”)
43	PSSL	I	Audio data output mode selection input terminal (fixed at “L”)
44	WDCK	O	Word clock signal (88.2 kHz) output terminal Not used (open)

Pin No.	Pin Name	I/O	Function
45	LRCK	O	L/R sampling clock signal (44.1 kHz) output to the D-RAM controller (IC680) and MPEG audio/video decoder (IC901)
46	DATA	O	DA16 output when PSSL="H", 48-bit slot serial data output when PSSL="L" (PSSL (pin ㊸)=fixed at "L") Serial data output to the D-RAM controller (IC680) and MPEG audio/video decoder (IC901)
47	BCLK	O	DA15 output when PSSL="H", 48-bit slot bit clock signal output when PSSL="L" (PSSL (pin ㊸)=fixed at "L") Bit clock signal (2.8224 MHz) output to the D-RAM controller (IC680) and MPEG audio/video decoder (IC901)
48	64 DATA	O	DA14 output when PSSL="H", 64-bit slot serial data output when PSSL="L" (PSSL (pin ㊸)=fixed at "L") Not used (open)
49	64 BCLK	O	DA13 output when PSSL="H", 64-bit slot bit clock signal output when PSSL="L" (PSSL (pin ㊸)=fixed at "L") Not used (open)
50	64 LRCK	O	DA12 output when PSSL="H", 64-bit slot L/R sampling clock signal output when PSSL="L" (PSSL (pin ㊸)=fixed at "L") Not used (open)
51	GTOP	O	DA11 output when PSSL="H", GTOP signal output when PSSL="L" (PSSL (pin ㊸)=fixed at "L") Not used (open)
52	XUGF	O	DA10 output when PSSL="H", XUGF signal output when PSSL="L" (PSSL (pin ㊸)=fixed at "L") Not used (open)
53	XPLCK	O	DA09 output when PSSL="H", XPLCK signal output when PSSL="L" (PSSL (pin ㊸)=fixed at "L") Not used (open)
54	GFS	O	DA08 output when PSSL="H", GFS (guard frame sync) signal output when PSSL="L" (PSSL (pin ㊸)=fixed at "L") Not used (open)
55	RFCK	O	DA07 output when PSSL="H", RFCK (read frame clock) signal output when PSSL="L" (PSSL (pin ㊸)=fixed at "L") Read frame clock signal output to the D-RAM controller (IC680)
56	C2PO	O	DA06 output when PSSL="H", C2PO signal output when PSSL="L" (PSSL (pin ㊸)=fixed at "L") C2PO signal output to the D-RAM controller (IC680) and MPEG audio/video decoder (IC901)
57	XRAOF	O	DA05 output when PSSL="H", XRAOF (RAM over flow) signal output when PSSL="L" (PSSL (pin ㊸)=fixed at "L") Not used (open)
58	MNT3	O	DA04 output when PSSL="H", MNT3 (monitor 3) signal output when PSSL="L" (PSSL (pin ㊸)=fixed at "L") Not used (open)
59	MNT2	O	DA03 output when PSSL="H", MNT2 (monitor 2) signal output when PSSL="L" (PSSL (pin ㊸)=fixed at "L") Not used (open)
60	MNT1	O	DA02 output when PSSL="H", MNT1 (monitor 1) signal output when PSSL="L" (PSSL (pin ㊸)=fixed at "L") Not used (open)
61	MNT0	O	DA01 output when PSSL="H", MNT0 (monitor 0) signal output when PSSL="L" (PSSL (pin ㊸)=fixed at "L") Not used (open)
62	XTAI	I	Master clock signal (16.9344 MHz) input from the D/A converter (IC320)
63	XTAO	O	Master clock output terminal (16.9344 MHz) Not used (open)
64	XTSL	I	Master clock selection input terminal (fixed at "L")
65	DVSS	—	Ground terminal (digital system)
66	FSTI	I	2/3 divider input terminal of pins ㊷ (XATI) and ㊸ (XTAO)
67	FSTO	O	2/3 divider output terminal of pins ㊷ (XATI) and ㊸ (XTAO)
68	C4M	O	4.2336 MHz clock signal output terminal Not used (open)
69	C16M	O	16.9344 MHz clock signal output terminal Not used (open)
70	MD2	I	Digital out on/off control signal input terminal Fixed at "H" in this set
71	DOUT	O	Digital signal (for coaxial out and optical out) output terminal Not used (open)
72	EMPH	O	Emphasis control signal output terminal Not used (open)
73	WFCK	O	Write frame clock signal output terminal Not used (open)

Pin No.	Pin Name	I/O	Function
74	SCOR	O	Sub-code sync (S0+S1) detection signal output to the D-RAM controller (IC680) and system controller (IC701)
75	SBSO	O	Sub-code P-W serial data output terminal Not used (open)
76	EXCK	I	Sub-code P-W serial data reading clock signal input terminal Not used (fixed at "L")
77	SUBQ	O	Sub-code Q data signal output to the system controller (IC701)
78	SQCK	I	Sub-code Q data reading clock signal input from the system controller (IC701)
79	MUTE	I	Mute signal input terminal Fixed at "L" in this set
80	SENS	O	Internal status (SENSE) signal output to the system controller (IC701)
81	$\overline{\text{XRST}}$	I	Reset signal input from the system controller (IC701) "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
82	DIRC	I	1-track jump mode input terminal Not used (fixed at "H")
83	SCLK	I	Sense serial data reading clock signal input from the system controller (IC701)
84	DFSW	I	Defect on/off select signal input terminal Not used (fixed at "L")
85	ATSK	I	Input terminal for the anti-shock Not used (fixed at "L")
86	DATA	I	Serial data input from the system controller (IC701)
87	XLAT	I	Serial data latch pulse signal input from the system controller (IC701)
88	CLOK	I	Serial data transfer clock signal input from the system controller (IC701)
89	COUT	O	Track number count signal output terminal Not used (open)
90	DVDD	—	Power supply terminal (+3.3V) (digital system)
91	MIRR	O	Mirror detection signal output terminal Not used (open)
92	DFCT	O	Defect signal output terminal Not used (open)
93	FOK	O	Focus OK signal output terminal Not used (open)
94	FSW	O	Selection signal output terminal of the output filter for spindle motor Not used (open)
95	MON	O	Spindle motor on/off control signal output terminal Not used (open)
96	MDP	O	Spindle servo control signal output to the BA3890F (IC602)
97	MDS	O	Spindle servo control signal output to the BA3890F (IC602)
98	LOCK	O	GFS is sampled by 460 Hz "H" output when GFS is "H" Not used (open)
99	SSTP	I	Detection input from the sled limit-in detect switch (S910) The optical pick-up is inner position when "H"
100	SFDR	O	Sled servo drive PWM signal (+) output to the MPC17A38ZVMEL (IC502)

• MAIN BOARD (1/2) IC701 MSM65354-406GS-BK4 (SYSTEM CONTROLLER, LCD DRIVER, KEY CONTROL)

Pin No.	Pin Name	I/O	Function
1	COM1	O	Common drive signal output to the liquid crystal display (LCD401)
2	COM2	O	
3	COM3	O	
4	COM4	O	
5	SEG0	O	Segment drive signal output to the liquid crystal display (LCD401)
6	SEG1	O	
7	SEG2	O	
8	SEG3	O	
9	SEG4	O	
10	SEG5	O	
11	SEG6	O	
12	NC	O	Not used (open)
13	SEG7	O	Segment drive signal output to the liquid crystal display (LCD401)
14	SEG8	O	
15	SEG9	O	
16	SEG10	O	
17	SEG11	O	
18	SEG12	O	
19 to 36	NC	O	Not used (open)
37	AGND	—	Ground terminal (analog system)
38	—	I	Not used (fixed at “H”)
39	DOOR OPEN	I	CD lid open/close detection switch (S401) input terminal The stop status is reset with the falling edge of input signal “H”: CD lid open, “L”: CD lid close
40	KEY IN1	I	Key input terminal (A/D input) RETURN, MENU –, PREV ⏮, ⏯, NEXT ⏭, MENU + keys input (S441 to 446)
41	KEY IN2	I	Key input terminal (A/D input) ☐ POWER OFF, SELECT, MEGA BASS, ESP, PLAY MODE, REPEAT/ENTER keys input (S421 to 426)
42	DC CHK	I	DC in voltage detection input terminal (A/D input) Also used for DC IN detection
43	NTSC/PAL	I	Video system select switch (S703) input terminal “L”: NTSC, “H”: AUTO
44	DCINJACK	I	DC IN 6V jack (J801) detection input terminal “L”: plug in
45	VIDEOJACK	I	AUDIO/VIDEO OUT jack (J901) detection input terminal “L”: plug in
46	VRH	I	Reference voltage input terminal (+3.3V) (for A/D converter)
47	AVDD	—	Power supply terminal (+3.3V) (analog system)
48	DBB CTL1	O	MEGA BASS on/off control signal output to the BA3574BFS (IC360) “L”: MEGA BASS on (level-1 and level-2)
49	AU-MUTE	O	Analog line mute control signal output terminal “H”: mute on
50	$\overline{\text{XAU-RESET}}$	O	Reset signal output to the CXD2545Q (IC601) and D-RAM controller (IC680) “L”: reset
51	$\overline{\text{XV-RESET}}$	O	Reset signal output to the MPEG audio/video decoder (IC901) and video encoder (IC920) “L”: reset
52	HOLD	O	HOLD switch (S701) input terminal “L”: hold off, “H”: hold on
53	RESUME	I	RESUME switch (S702) input terminal “L”: resume off, “H”: resume on
54	XDSPLT	O	Serial data latch pulse signal output to the CXD2545Q (IC601)
55	XDACLT	O	Serial data latch pulse signal output to the D/A converter (IC320)
56	V-POWER	O	Video CD system power supply on/off control signal output terminal “L”: power on
57	AU-POWER	O	Audio CD system power supply on/off control signal output terminal “L”: power on

Pin No.	Pin Name	I/O	Function
58	ESP-POWER	O	Control signal output to the ESP (Electronic Shock Protection) circuit
59	TRVCTL	O	Tracking gain control signal output terminal
60	TRV3	O	Tracking balance control signal output terminal
61	TRV2	O	
62	TRV1	O	
63	TRV0	O	
64	$\overline{\text{XSOE}}$	O	Serial data output enable signal output to the D-RAM controller (IC680)
65	DSP-SUBQ	I	Sub-code Q data signal input from the CXD2545Q (IC601)
66	DSP-SBQCLK	O	Sub-code Q data reading clock signal output to the CXD2545Q (IC601)
67	REMOTE	I	Sircs remote control signal input from the remote control receiver (IC401)
68	DSP-DATA	O	Serial data output to the CXD2545Q (IC601) and D/A converter (IC320)
69	DSP-SENS	I	Internal status (SENSE) signal input from the CXD2545Q (IC601)
70	DSP-CLK	O	Serial data transfer clock signal output to the CXD2545Q (IC601) and D/A converter (IC320)
71	DSP-SNSCLK	O	Sense serial data reading clock signal output to the CXD2545Q (IC601)
72	VDD	—	Power supply terminal (+3.3V) (digital system)
73	BEEP	O	Beep sound drive signal output terminal
74	C2PO	O	C2PO signal control output to the D-RAM controller (IC680) “L”: stop mode, “H”: searching
75	ESP-CLK	O	Serial data transfer clock signal output to the D-RAM controller (IC680)
76	ESP-DATA	O	Serial data output to the D-RAM controller (IC680)
77	ESP-LT	O	Serial data latch pulse signal output to the D-RAM controller (IC680)
78	ESP-SENSE	I	Sense serial data input from the D-RAM controller (IC680)
79	$\overline{\text{XLASERCTL}}$	O	Laser diode on/off control signal output to the CXA1791N (IC501) “L”: laser on
80	DSP-SCOR	I	Sub-code sync (S0+S1) detection signal input from the CXD2545Q (IC601)
81	OSC1	O	Main system clock output terminal (4.19 MHz)
82	OSC0	I	Main system clock input terminal (4.19 MHz)
83	GND	—	Ground terminal (digital system)
84	XT	I	Sub system clock input terminal Not used (fixed at “L”)
85	XTO	O	Sub system clock output terminal Not used (open)
86	A-SELECT	O	Selection signal output to the DATA, BCLK, LRCK signal select switch (IC301) “L”: CD play, “H”: video CD play
87	XIRCTL	O	Power supply on/off control signal for the remote control receiver (IC401) “L”: power on
88	SYS XMT RQ	O	Communication request signal output to the MPEG audio/video decoder (IC901)
89	SYS RCV RDY	O	Ready signal output to the MPEG audio/video decoder (IC901)
90	MPG XMT RQ	I	Communication request signal input from the MPEG audio/video decoder (IC901)
91	ESS-DATAO	O	Serial data output to the MPEG audio/video decoder (IC901)
92	ESS-DATAI	I	Serial data input from the MPEG audio/video decoder (IC901)
93	ESS-CLK	O	Serial data transfer clock signal output to the MPEG audio/video decoder (IC901)
94	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC702) “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
95	$\overline{\text{TEST}}$	I	Service mode setting terminal The stop status is reset with the falling edge of input signal “L”: service mode, Normally: “H”
96	DBB CTL2	O	MEGA BASS level control signal output to the BA3574BFS (IC360) “L”: MEGA BASS level-1, “H”: MEGA BASS level-2
97	VDDL	—	Power supply output for the liquid crystal display bias
98	VDD1	—	
99	VDD2	—	
100	VDD3	—	

• MAIN BOARD (1/2) IC901 ES3210 (MPEG AUDIO/VIDEO DECODER)

Pin No.	Pin Name	I/O	Function
1	VCC	—	Power supply terminal (+3.3V)
2	$\overline{\text{DRAS B}}$	O	Row address strobe signal output to the D-RAM (IC903) "L" active
3	$\overline{\text{DWE B}}$	O	Write enable signal output to the D-RAM (IC903) "L" active
4	MA0	O	Address signal output to the D-RAM (IC903)
5	MA1	O	
6	MA2	O	
7	MA3	O	
8	MA4	O	
9	MA5	O	
10	MA6	O	
11	MA7	O	
12	MA8	O	
13	DBUS0	I/O	Two-way data bus with the D-RAM (IC903)
14	DBUS1	I/O	
15	DBUS2	I/O	
16	DBUS3	I/O	
17	DBUS4	I/O	
18	DBUS5	I/O	
19	DBUS6	I/O	
20	DBUS7	I/O	
21	DBUS8	I/O	
22	DBUS9	I/O	
23	DBUS10	I/O	
24	DBUS11	I/O	
25	DBUS12	I/O	
26	DBUS13	I/O	
27	DBUS14	I/O	
28	DBUS15	I/O	
29	$\overline{\text{RESET B}}$	I	Reset signal input from the system controller (IC701) "L": reset
30	VSS	—	Ground terminal
31	VCC	—	Power supply terminal (+3.3V)
32	YUV0	O	Video data output to the video encoder (IC920) (YUV; Y: luminance signal, UV: Screen video interface chrominance data bus)
33	YUV1	O	
34	YUV2	O	
35	YUV3	O	
36	YUV4	O	
37	YUV5	O	
38	YUV6	O	
39	YUV7	O	
40	VSSCN B	O	Vertical synchronous signal output to the video encoder (IC920)
41	HSSCN B	O	Horizontal synchronous signal output to the video encoder (IC920)
42	CLK	I	System clock signal input terminal Not used (open)
43	PCLK2XSCN	I	System clock signal (27 MHz) input from the video encoder (IC920)
44	PCKLQSCN	O	Pixel clock qualifier output for the screen video interface Not used (open)
45	AUX0	O	Sub control signal output terminal Not used (open)

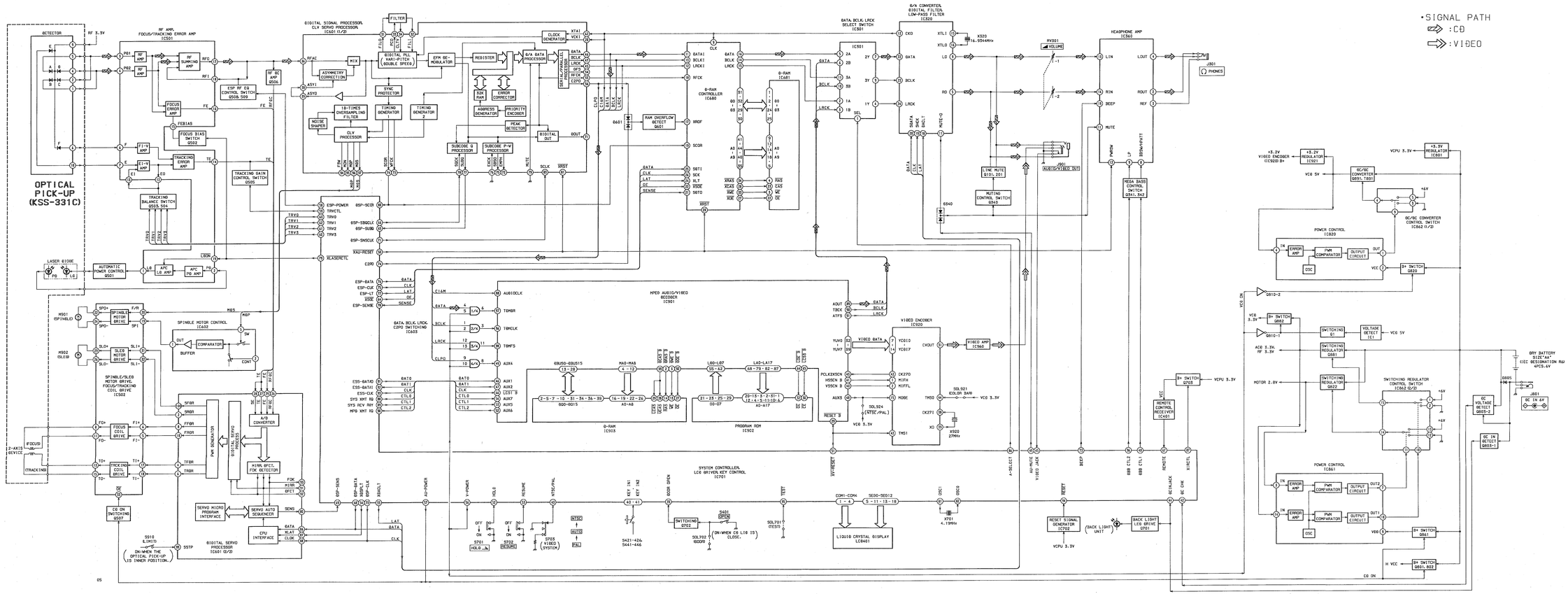
Pin No.	Pin Name	I/O	Function
46	AUX1	I	Serial data input from the system controller (IC701)
47	AUX2	O	Serial data output to the system controller (IC701)
48	AUX3	O	NTSC/PAL mode selection signal output to the video encoder (IC920) "L": NTSC, "H": PAL
49	AUX4	I	C2PO signal input from the CXD2545Q (IC601)
50	VSS	—	Ground terminal
51	VCC	—	Power supply terminal (+3.3V)
52	AUX6	O	Communication request signal output to the system controller (IC701)
53	AUX5	I	Ready signal input from the system controller (IC701)
54	AUX7	I	Communication request signal input from the system controller (IC701)
55	LD0	I	Data input from the program ROM (IC902)
56	LD1	I	
57	LD2	I	
58	LD3	I	
59	LD4	I	
60	LD5	I	
61	LD6	I	
62	LD7	I	
63	$\overline{\text{LWR B}}$	O	Write enable signal output terminal "L" active Not used
64	$\overline{\text{LOE B}}$	O	Output enable signal output to the program ROM (IC902) "L" active
65	$\overline{\text{LCS3 B}}$	O	Chip select signal output to the program ROM (IC902) "L" active
66	$\overline{\text{LCS1 B}}$	I	Serial data transfer clock signal input from the system controller (IC701) "L" active
67	$\overline{\text{LCS0 B}}$	O	Chip select signal output terminal "L" active Not used (open)
68	LA0	O	Address signal output to the program ROM (IC902)
69	LA1	O	
70	LA2	O	
71	LA3	O	
72	LA4	O	
73	LA5	O	
74	LA6	O	
75	LA7	O	
76	LA8	O	
77	LA9	O	
78	LA10	O	
79	LA11	O	
80	VSS	—	Ground terminal
81	VPP	—	Power supply terminal (+5V) (digital system)
82	LA12	O	Address signal output to the program ROM (IC902)
83	LA13	O	
84	LA14	O	
85	LA15	O	
86	LA16	O	
87	LA17	O	
88	AUDIOCLK	I	Audio master clock signal (16.9344 MHz) input from the D/A converter (IC320)
89	AOUT	O	Audio interface serial data output to the D/A converter (IC320)
90	TBCK	O	Bit clock signal (2.8224 MHz) output to the D/A converter (IC320)
91	ATFS	O	L/R sampling clock signal (44.1 kHz) output to the D/A converter (IC320)

Pin No.	Pin Name	I/O	Function
92	$\overline{\text{DOE B}}$	O	Output enable signal output to the D-RAM (IC903) "L" active
93	AIN	I	Audio interface serial data input terminal Not used (open)
94	RBCK	I	Audio interface bit clock signal (2.8224 MHz) input terminal Not used (open)
95	ARFS	I	Audio interface L/R sampling clock signal (44.1 kHz) input terminal Not used (open)
96	TDMCLK	I	Bit clock signal (2.8224 MHz) input from the CXD2545Q (IC601)
97	TDMDR	I	Serial data input from the CXD2545Q (IC601)
98	TDMFS	I	L/R sampling clock signal (44.1 kHz) input from the CXD2545Q (IC601)
99	$\overline{\text{DCAS B}}$	O	Column address strobe signal output to the D-RAM (IC903) "L" active
100	VSS	—	Ground terminal

• MAIN BOARD (1/2) IC920 TC90A07U (VIDEO ENCODER)

Pin No.	Pin Name	I/O	Function
1	MIFH	I	Horizontal synchronous signal input from the MPEG audio/video decoder (IC901)
2	MIFFL	I	Vertical synchronous signal input from the MPEG audio/video decoder (IC901)
3	MIFFR	O	Frame synchronous signal output terminal Not used (open)
4	VBLNKI	I	Video blanking signal input terminal "L": blanking
5	VDD	—	Power supply terminal (+3.3V) (digital system)
6	GND	—	Ground terminal (digital system)
7	YCDI0	I	8 bit pixel data (LSB) input from the MPEG audio/video decoder (IC901)
8 to 13	YCDI1 to YCDI6	I	8 bit pixel data input from the MPEG audio/video decoder (IC901)
14	YCDI7	I	8 bit pixel data (MSB) input from the MPEG audio/video decoder (IC901)
15	MODE	I	NTSC/PAL mode selection signal input from the MPEG audio/video decoder (IC901) "L": NTSC, "H": PAL
16	VBLNKO	O	Video blanking signal output terminal
17	VDD	—	Power supply terminal (+3.3V) (digital system)
18	GND	—	Ground terminal (digital system)
19	CLPF	I	Low-pass filter on/off control signal input for the internal CbCr "L": on, "H": off Fixed at "L" in this set
20	BF	O	Burst flag pulse output terminal Not used (open)
21	BLK	O	Blanking signal output terminal Not used (open)
22	FLD	O	Field discrimination signal output terminal "L": odd number field, "H": even number field Not used (open)
23	BIAS2	—	Connect a capacitor for the D/A converter bias
24	BIAS1	—	Connect a capacitor for the D/A converter bias
25	VREF	I	Reference voltage input terminal (for D/A converter)
26	AGND	—	Ground terminal (analog system for D/A converter)
27	YOUT	O	Analog Y signal (luminance signal) output terminal Not used (open)
28	AVCC	—	Power supply terminal (+3.3V) (analog system for D/A converter)
29	COUT	O	Analog C signal (chroma signal) output terminal Not used (open)
30	AGND	—	Ground terminal (analog system for D/A converter)
31	CVOUT	O	Analog composite video signal output terminal
32	AVCC	—	Power supply terminal (+3.3V) (analog system for D/A converter)
33	CSYNC	O	Composite synchronous signal output terminal Not used (open)
34	HSYNC	O	Horizontal synchronous signal output terminal Not used (open)
35	VSYNC	O	Vertical synchronous signal output terminal Not used (open)
36	TMS3	I	Mode setting terminal Normally fixed at "H"
37	VDD	—	Power supply terminal (+3.3V) (digital system)
38	CK27I	I	System clock input terminal (27 MHz)
39	XO	O	System clock output terminal (27 MHz)
40	GND	—	Ground terminal (digital system)
41	TMS2	I	Mode setting terminal Normally fixed at "H"
42	CK27O	O	System clock signal (27 MHz) output to the MPEG audio/video decoder (IC901)
43	TMS1	I	Reset signal input from the system controller (IC701) "L": reset
44	TMS0	I	Video output mode setting terminal "L": normal output mode, "H": color bar output mode

6-2. BLOCK DIAGRAM



6-3. PRINTED WIRING BOARD – MAIN BOARD –

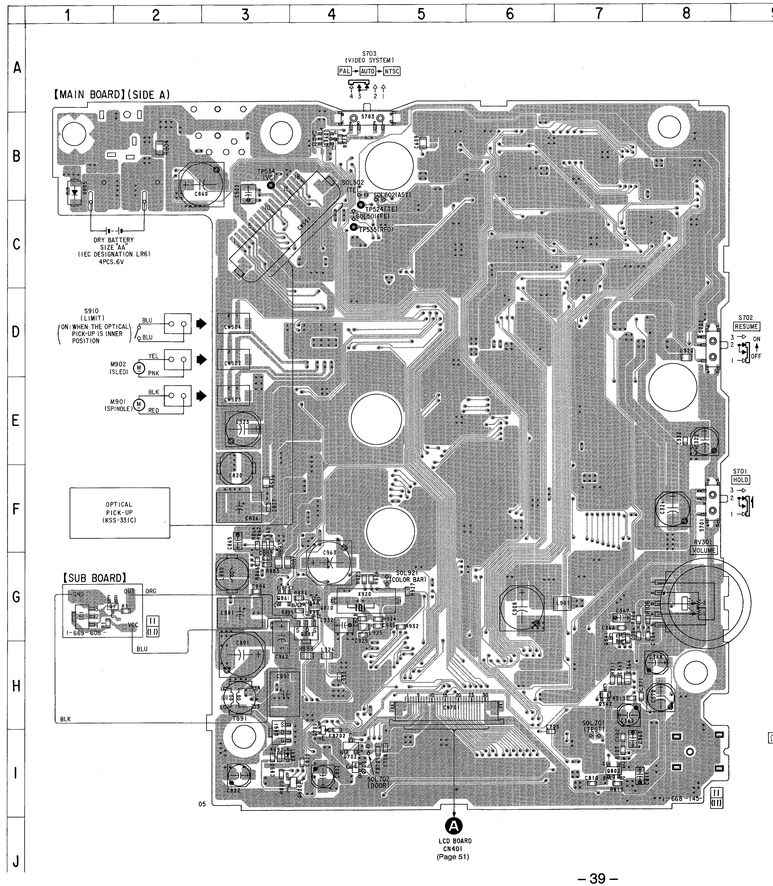
• **Semiconductor Location**

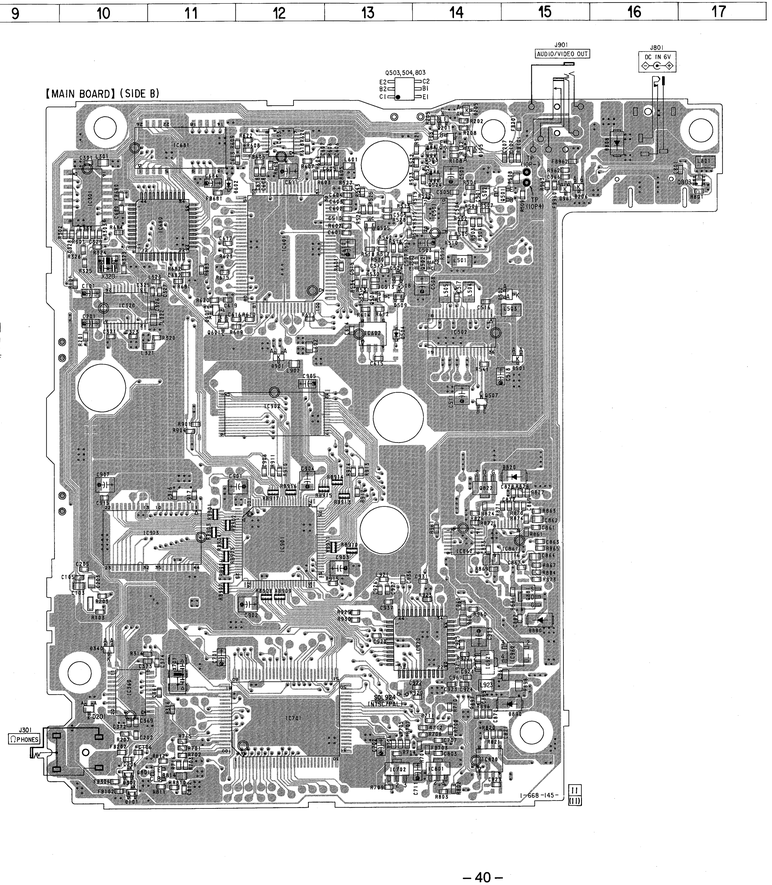
Ref. No.	Location	Ref. No.	Location
D101	I-10	IC862	G-14
D105	B-14	IC901	F-12
D201	H-10	IC902	E-12
D205	B-14	IC903	F-11
D206	B-15	IC920	H-14
D302	I-10	IC921	H-14
D340	H-10	IC960	H-15
D501	D-15		
D502	D-15	Q1	G-1
D504	D-13	Q101	B-14
D601	D-11	Q201	B-14
D602	B-11	Q340	B-4
D805	B-1	Q341	H-7
D808	B-16	Q342	H-7
D820	F-15	Q501	B-15
D880	G-15	Q502	C-14
D890	H-15	Q503	B-14
D891	I-3	Q504	B-14
D901	D-12	Q505	C-13
D961	B-15	Q506	D-13
		Q507	E-14
IC1	G-1	Q508	C-13
IC301	C-10	Q509	D-13
IC320	D-10	Q601	D-11
IC360	H-10	Q701	I-4
IC501	C-14	Q702	I-4
IC502	D-14	Q703	I-4
IC601	C-12	Q801	I-11
IC602	D-13	Q802	I-7
IC603	B-12	Q803	B-17
IC680	C-11	Q810	G-4
IC681	B-11	Q820	I-4
IC701	H-12	Q822	F-14
IC702	I-13	Q861	G-3
IC801	I-14	Q881	G-15
IC820	I-14	Q882	G-4
IC861	G-15	Q891	I-3

Note on Printed Wiring Board:
- o—— : parts extracted from the component side.
- ——o : parts extracted from the conductor side.
- △ : internal component.
- ▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

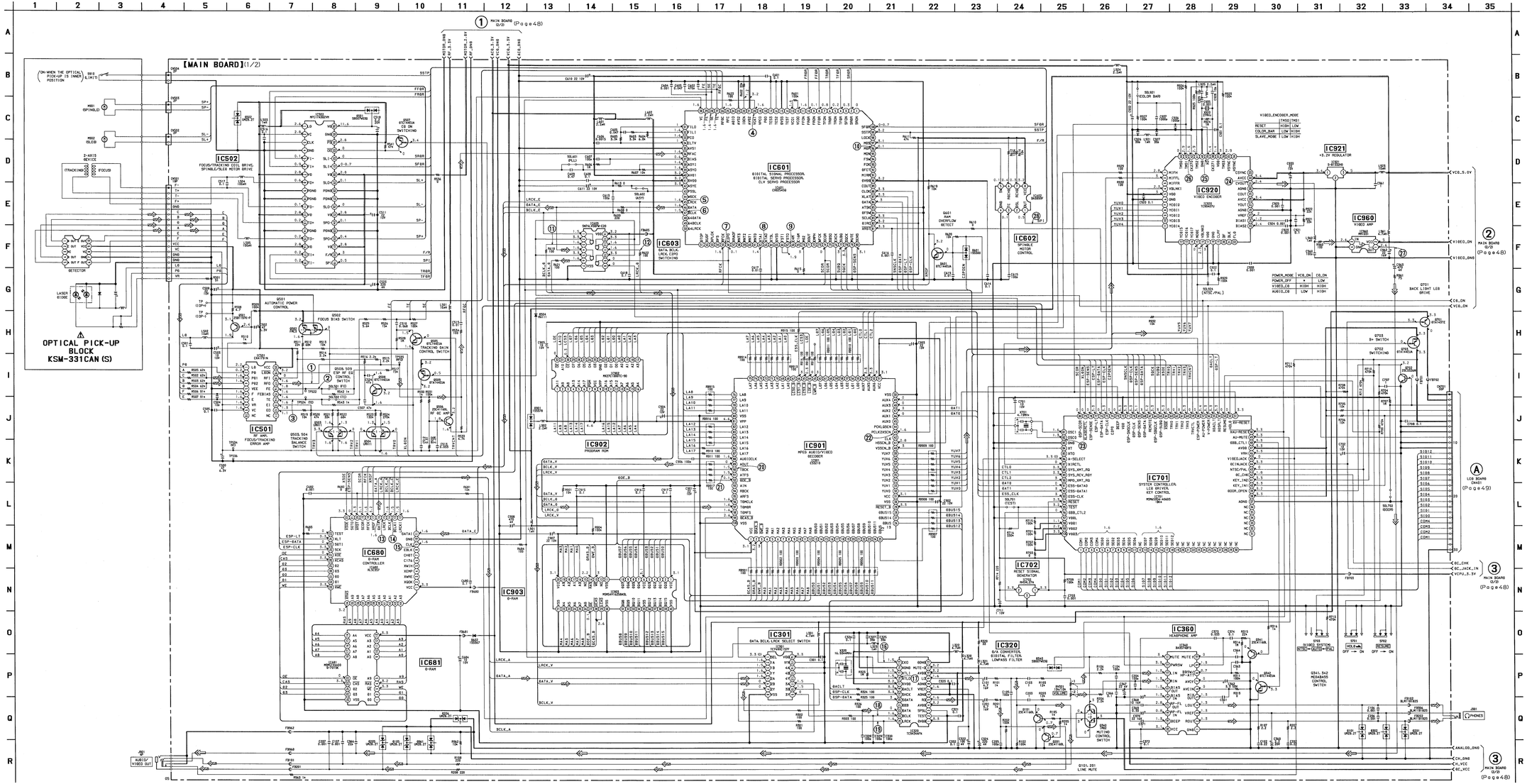
Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.





6-4. SCHEMATIC DIAGRAM – MAIN BOARD (1/2) –

• See page 53 for Waveforms. • See page 56 for IC Block Diagrams. • See page 24 for IC Pin Function Description.



Note on Schematic Diagram:

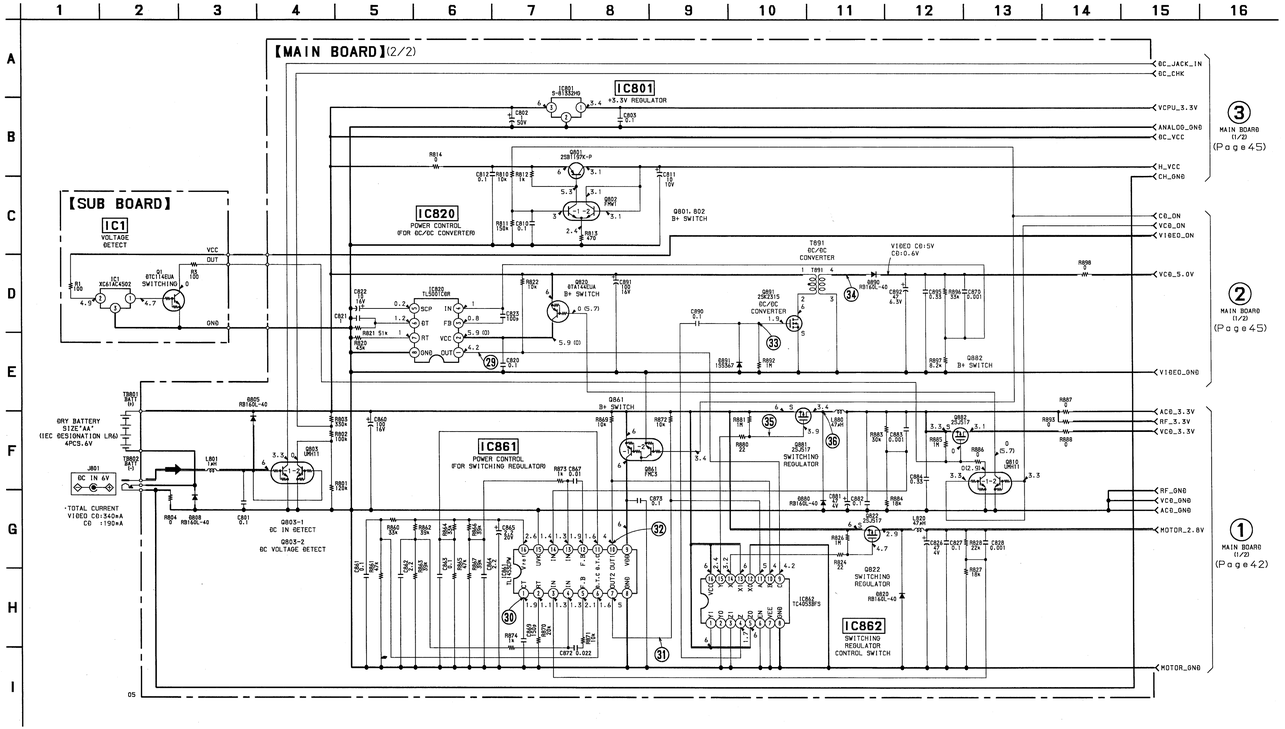
- All capacitors are in µF unless otherwise noted. pF: µµF
  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- ⚠ : internal component.
- ▭ : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

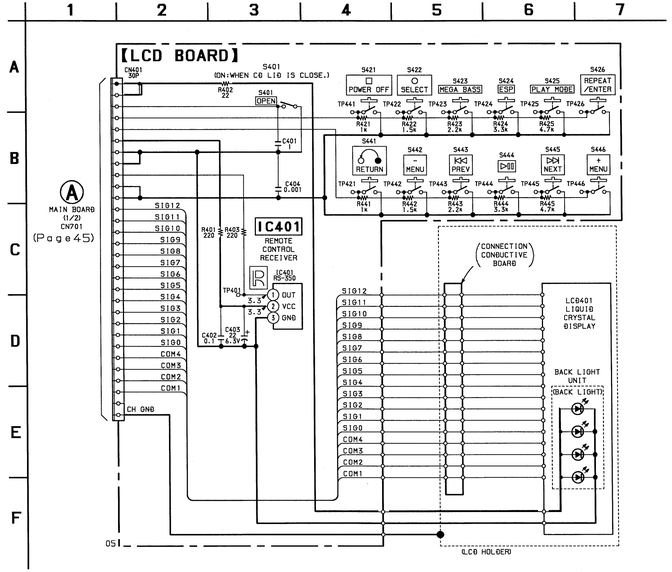
- ▬ : B+ Line.
- Power voltage is dc 6 V and fed with regulated dc power supply from external power voltage jack.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : VIDEO CD PLAY
  ( ) : CD PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : VIDEO
  ⇨ : CD

6-5. SCHEMATIC DIAGRAM – MAIN BOARD (2/2) –

• See page 54 for Waveforms. • See page 60 for IC Block Diagrams. • See page 38 for Printed Wiring Board.



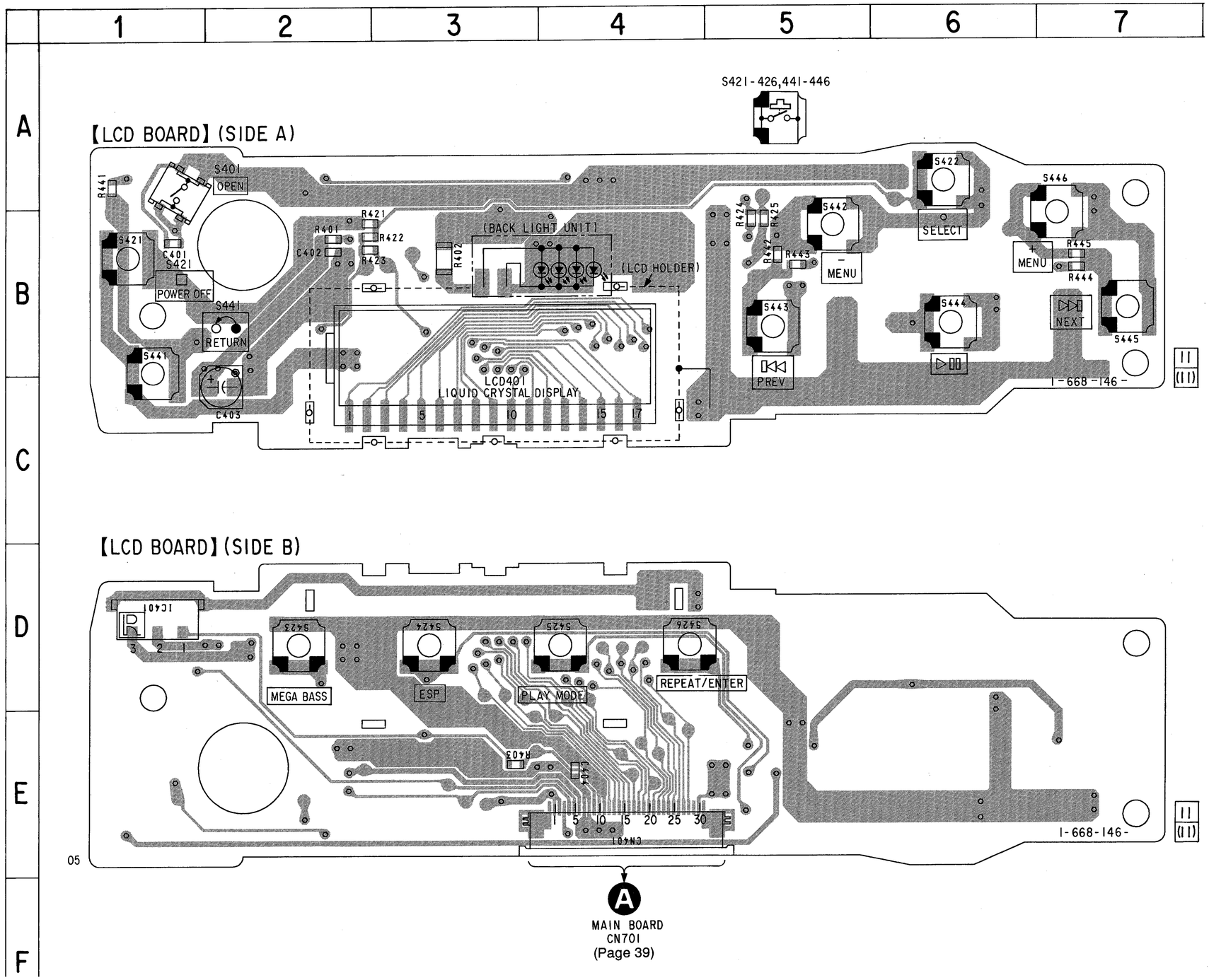
6-6. SCHEMATIC DIAGRAM – LCD BOARD –



Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- ▭ : panel designation.
- ▬ : B+ Line.
- Power voltage is dc 6 V and fed with regulated dc power supply from external power voltage jack.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : VIDEO CD PLAY
  ( ) : CD PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.

6-7. PRINTED WIRING BOARD – LCD BOARD –



Note on Printed Wiring Board:

- ——— : parts extracted from the conductor side.
- ▒▒▒ : Pattern from the side which enables seeing.

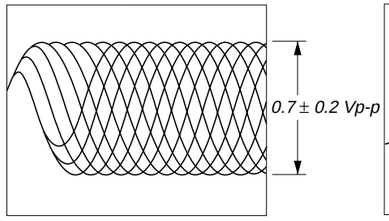
(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

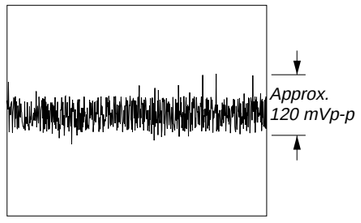
• Waveforms

– MAIN Board (1/2) –

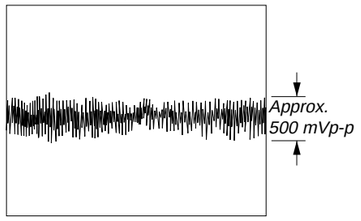
❶ IC501 ⑰ (RFO)
200 mV/DIV, 500 ns/DIV



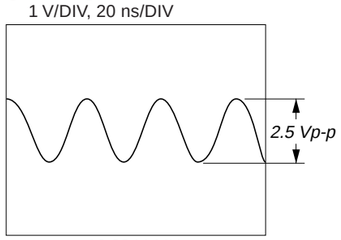
❷ IC501 ⑯ (FE)
50 mV/DIV, 5 ms/DIV



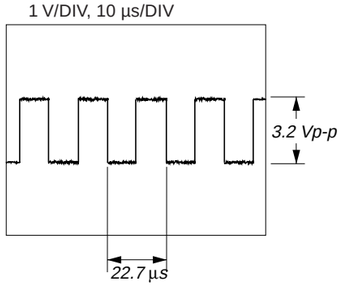
❸ IC501 ⑭ (TE)
200 mV/DIV, 5 ms/DIV



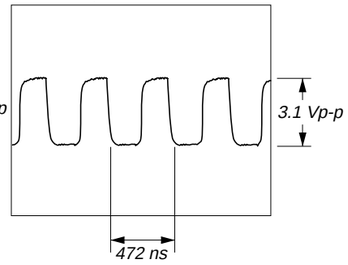
❹ IC601 ⑳ (VCKI)
1 V/DIV, 20 ns/DIV



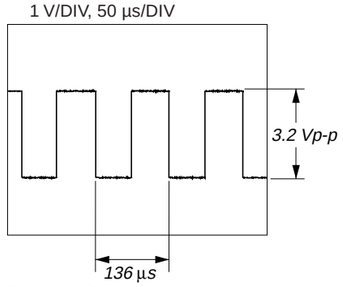
❺ IC601 ㊺ (LRCK)
1 V/DIV, 10 µs/DIV



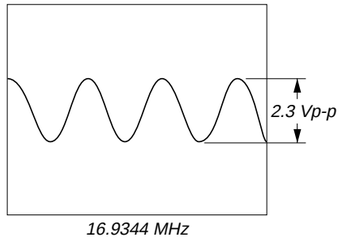
❻ IC601 ㊼ (BCLK)
1 V/DIV, 200 ns/DIV



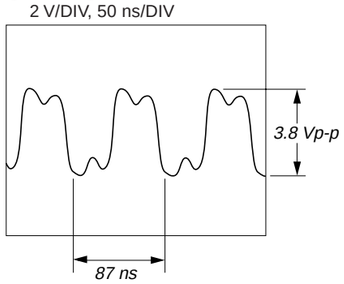
❼ IC601 ㊺ (RFCK)
1 V/DIV, 50 µs/DIV



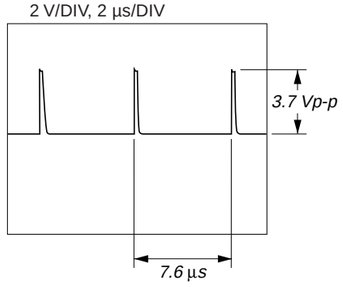
❽ IC601 ㊷ (XTAI)
1 V/DIV, 20 ns/DIV



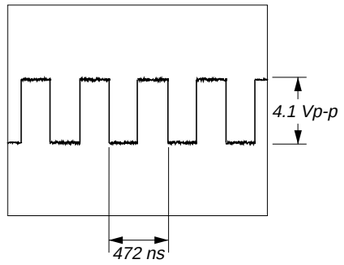
❾ IC601 ㊽ (FSTI)
2 V/DIV, 50 ns/DIV



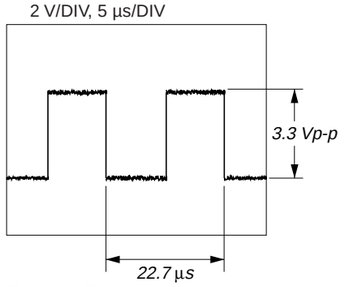
❿ IC601 ㊾ (MDP)
2 V/DIV, 2 µs/DIV



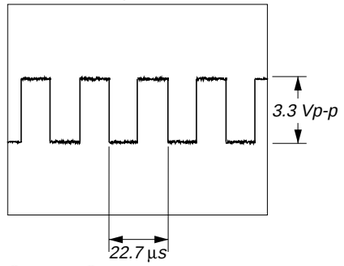
⓫ IC603 ③
2 V/DIV, 200 ns/DIV



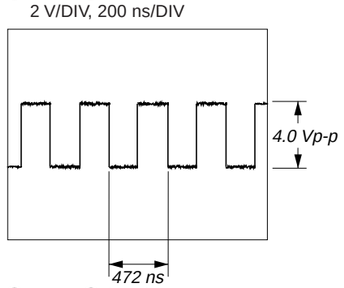
⓬ IC603 ⑪
2 V/DIV, 5 µs/DIV



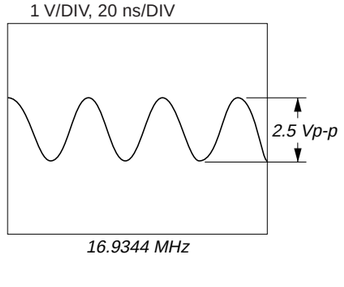
⓭ IC680 ⑮ (LRCK)
2 V/DIV, 10 µs/DIV



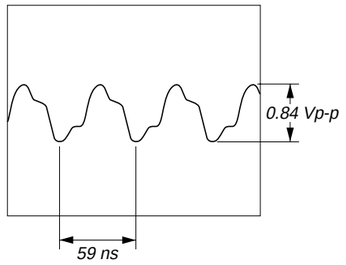
⓮ IC680 ⑭ (BCLK)
2 V/DIV, 200 ns/DIV



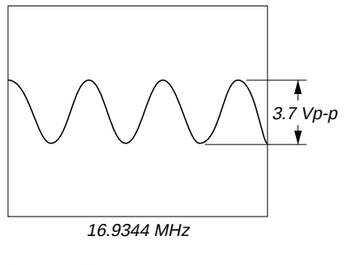
⓯ IC680 ⑨ (CLK)
1 V/DIV, 20 ns/DIV



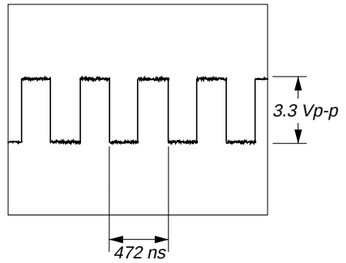
⓰ IC320 ⑬ (CKO)
2 V/DIV, 20 ns/DIV



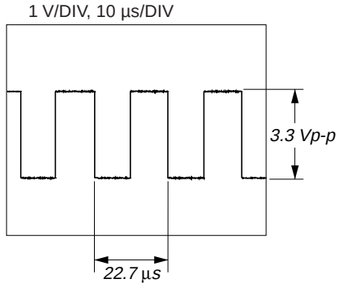
⓱ IC320 ⑯ (XTLO)
2 V/DIV, 20 ns/DIV



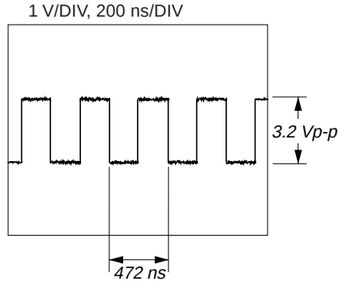
⓲ IC320 ㉓ (BCLK)
2 V/DIV, 200 ns/DIV



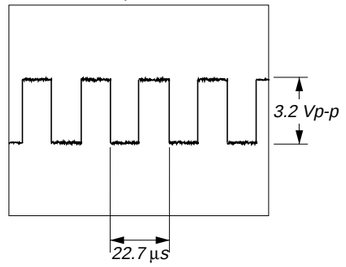
⓳ IC320 ㉔ (LRCK)
1 V/DIV, 10 µs/DIV



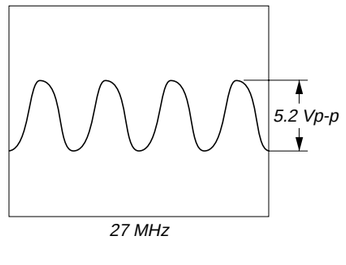
⓴ IC901 ㊿ (TBCK)
1 V/DIV, 200 ns/DIV



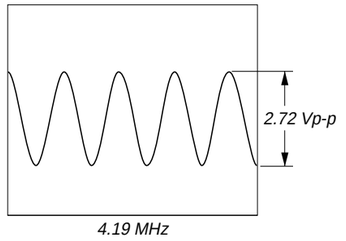
㉑ IC901 ㊶ (ATFS)
1 V/DIV, 10 µs/DIV



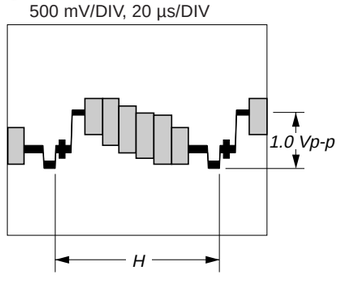
㉒ IC901 ㊸ (PCLK2XSCN)
2 V/DIV, 1 ms/DIV



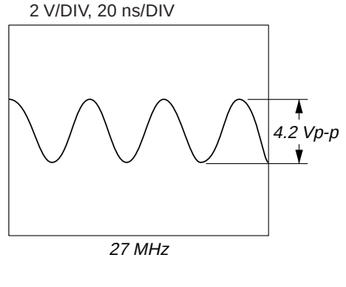
㉓ IC701 ㉜ (OSC0)
1 V/DIV, 100 ns/DIV



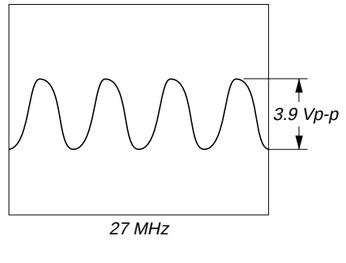
㉔ IC920 ㉛ (CVOUT)
500 mV/DIV, 20 µs/DIV



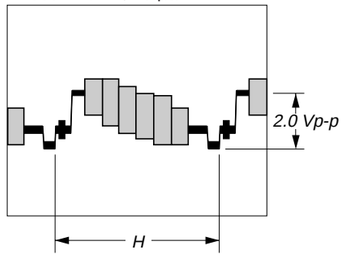
㉕ IC920 ㊴ (XO)
2 V/DIV, 20 ns/DIV



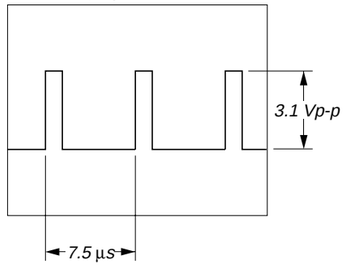
㉖ IC920 ㊷ (CK270)
2 V/DIV, 20 ns/DIV



㉗ IC960 ① (OUT)
500 mV/DIV, 20 µs/DIV

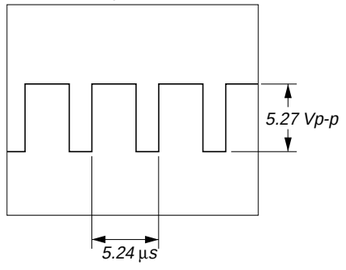


㉘ IC602 ① (OUT)
1 V/DIV, 2 µs/DIV

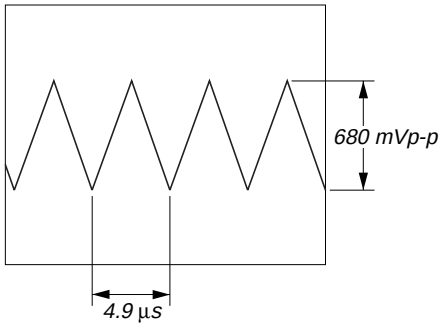


– MAIN Board (2/2) –

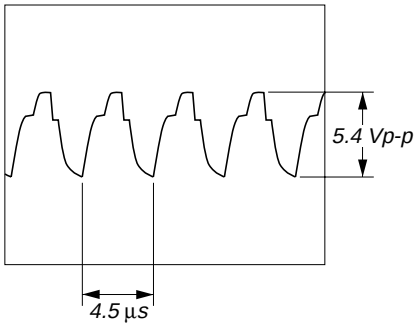
㉙ IC820 ① (OUT)
2 V/DIV, 2 µs/DIV



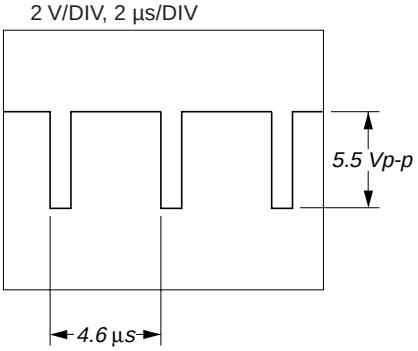
㉚ IC861 ① (CT)
200 mV/DIV, 2 µs/DIV



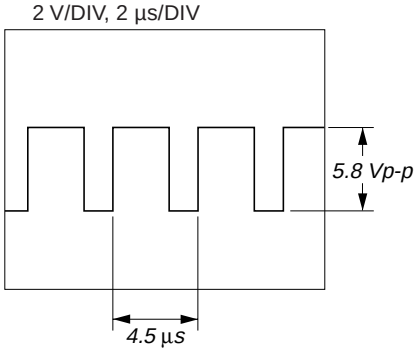
㉟ Q881 Ⓖ
2 V/DIV, 2 µs/DIV



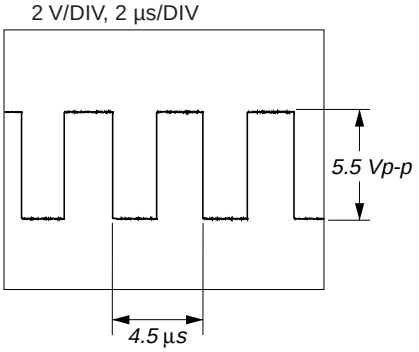
㉛ IC861 ⑦ (OUT2)
2 V/DIV, 2 µs/DIV



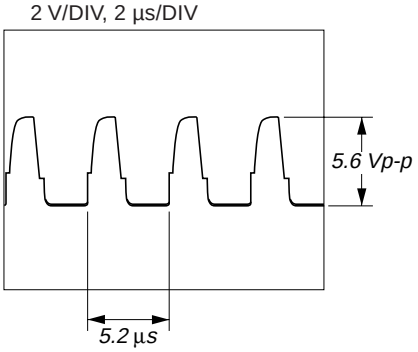
㊱ Q881 Ⓓ
2 V/DIV, 2 µs/DIV



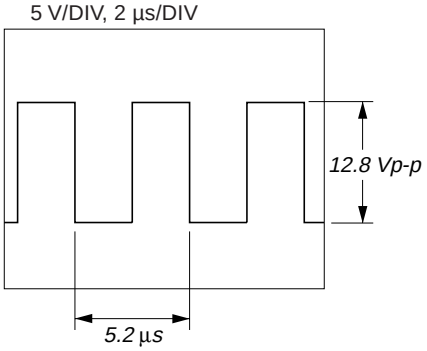
㉜ IC861 ⑩ (OUT2)
2 V/DIV, 2 µs/DIV



㉝ Q891 Ⓖ
2 V/DIV, 2 µs/DIV

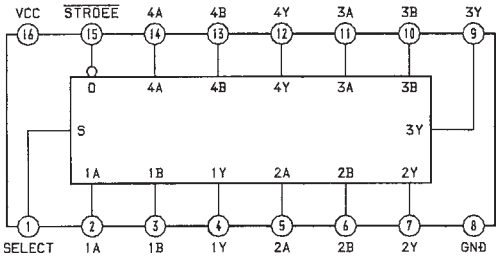


㉞ T891 ④
5 V/DIV, 2 µs/DIV

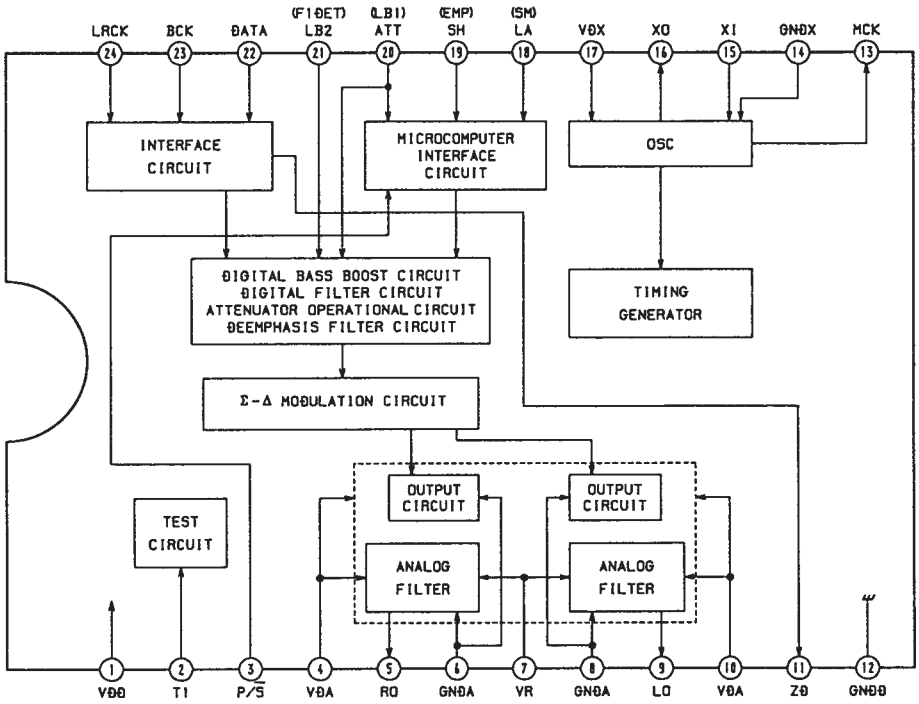


• IC Block Diagrams
– MAIN Board (1/2) –

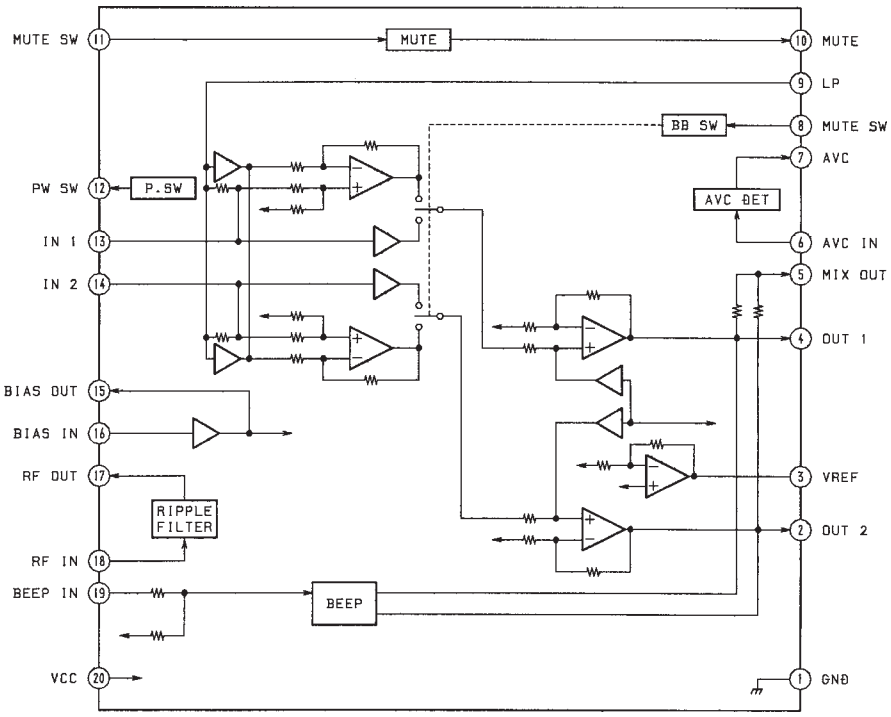
IC301 TC74VHC157F



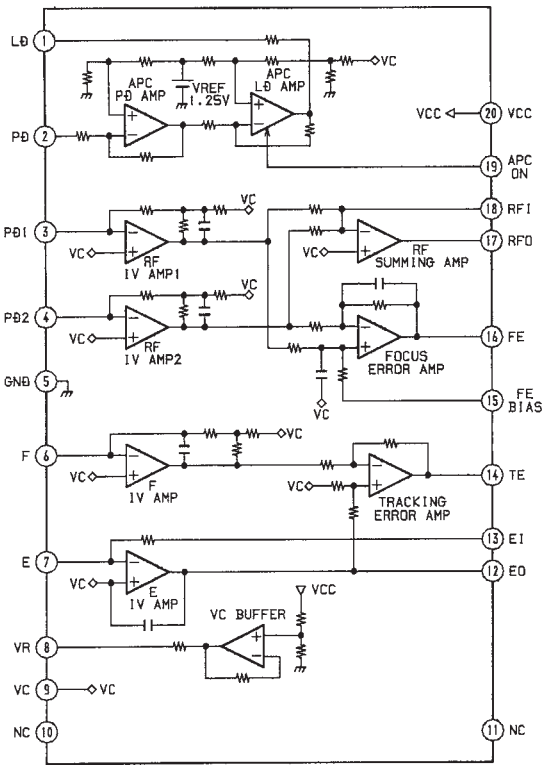
IC320 TC9434AFNEL



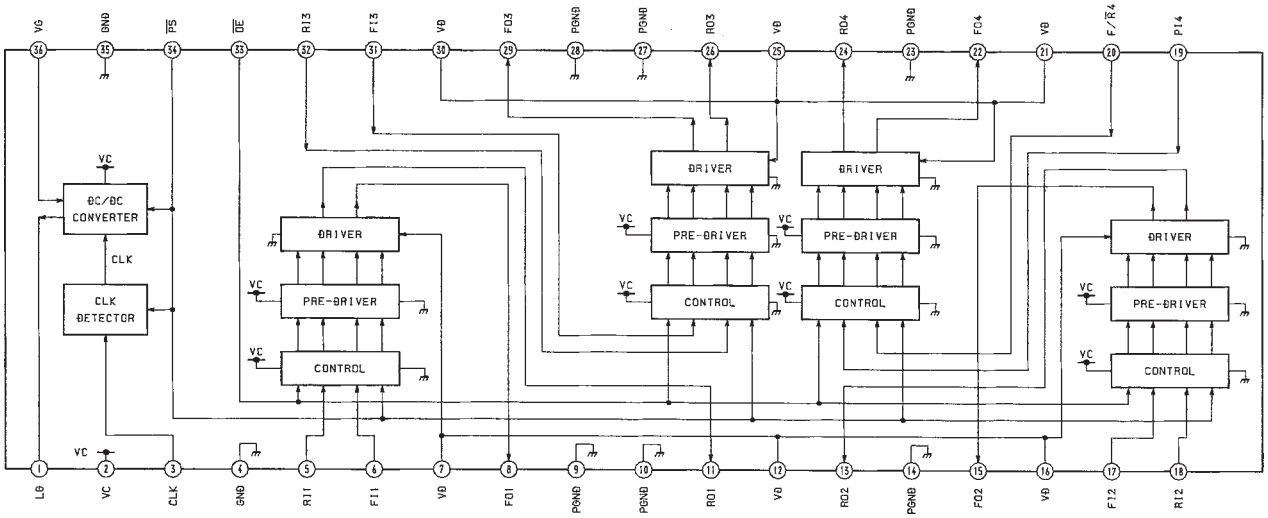
IC360 BA3574BFS-T1



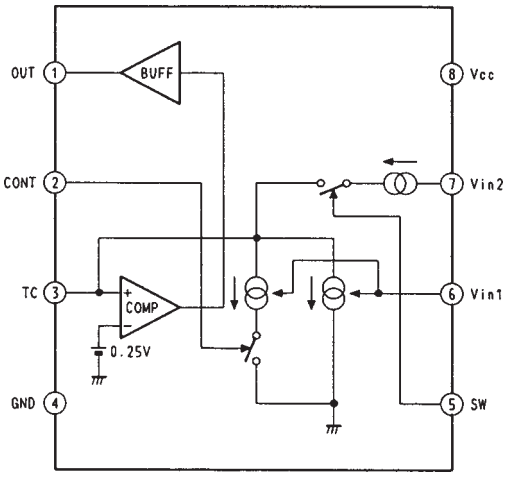
IC501 CXA1791N



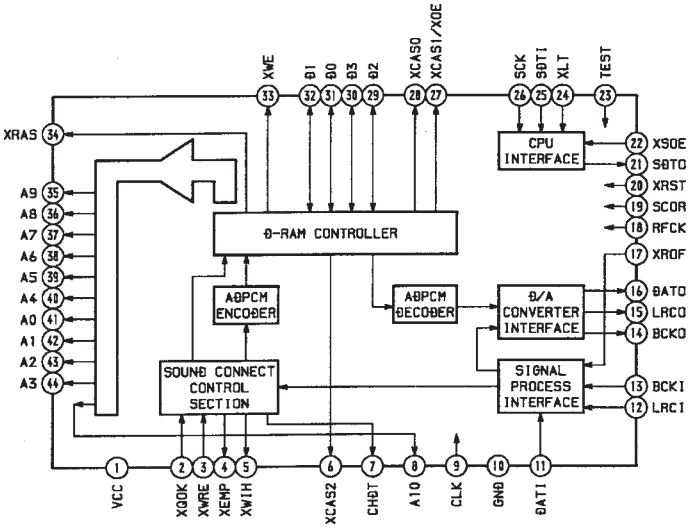
IC502 MPC17A38ZVMEL



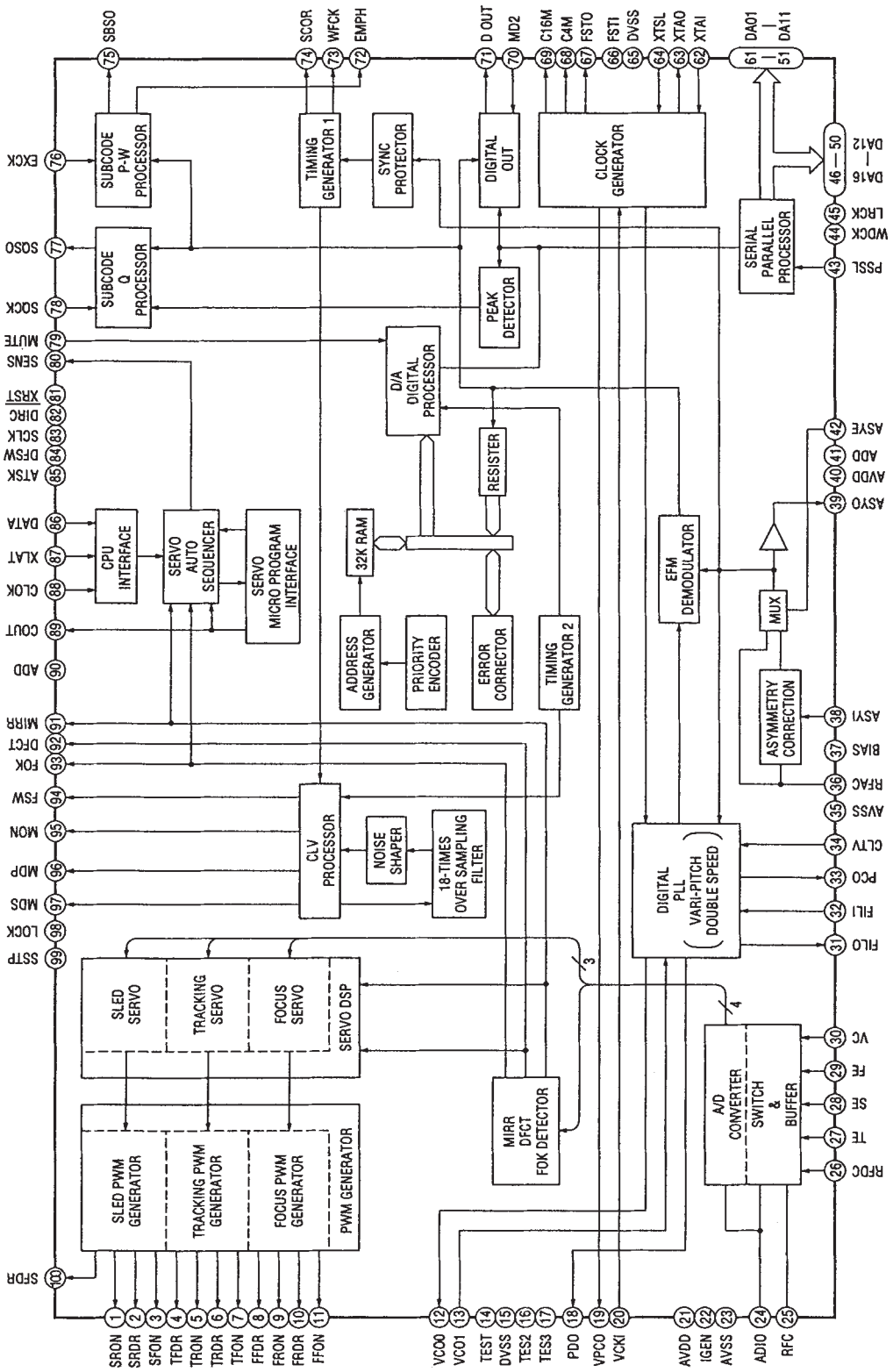
IC602 BA3890F



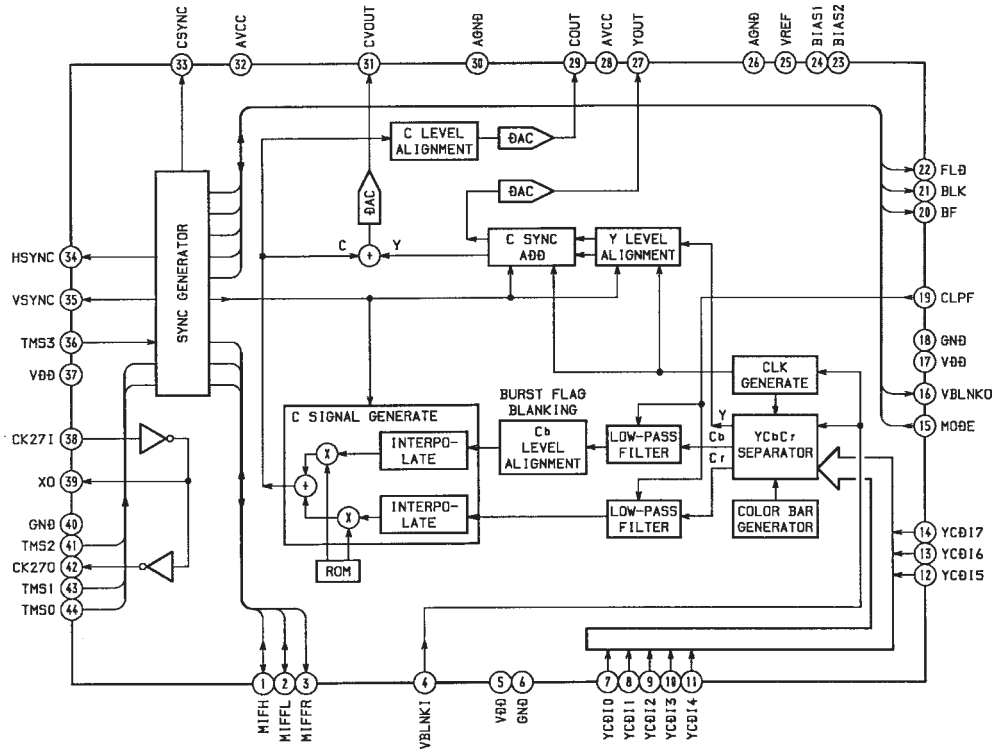
IC680 RS5C357



IC601 CXD2545Q

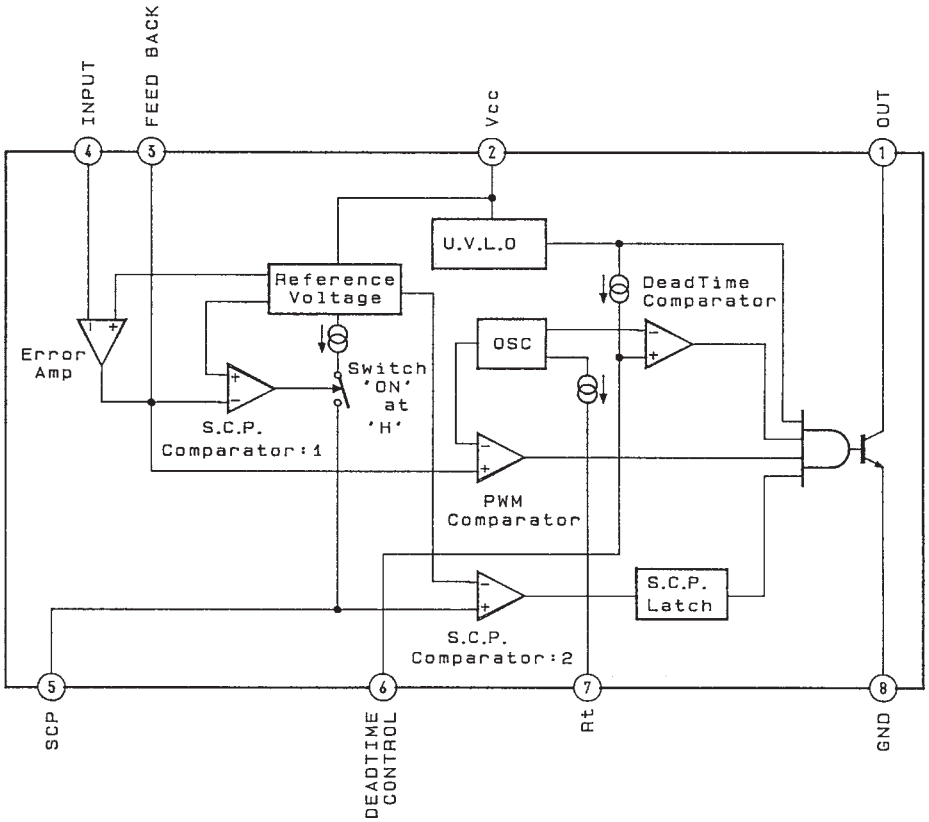


IC920 TC90A07U

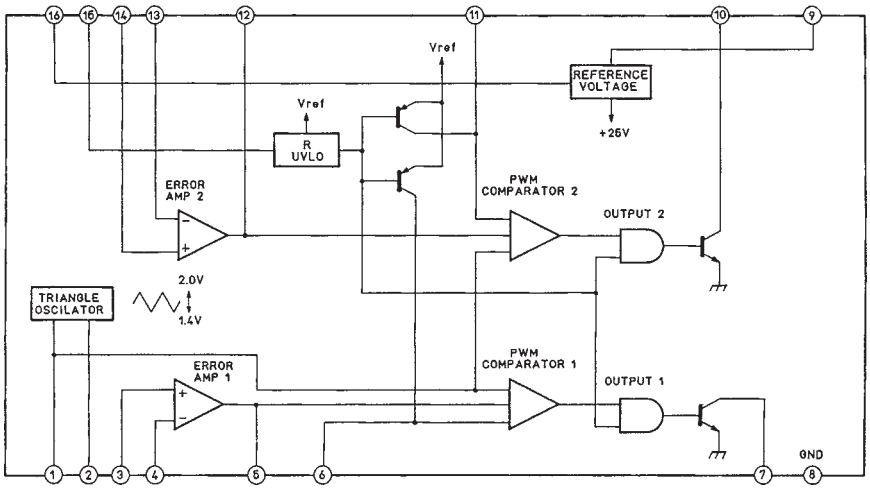


– MAIN Board (2/2) –

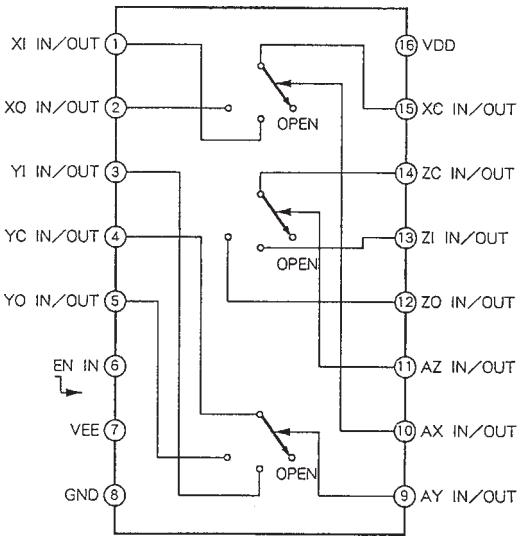
IC820 TL5001CD



IC861 TL1453CPW-E20



IC862 TC4053BFS



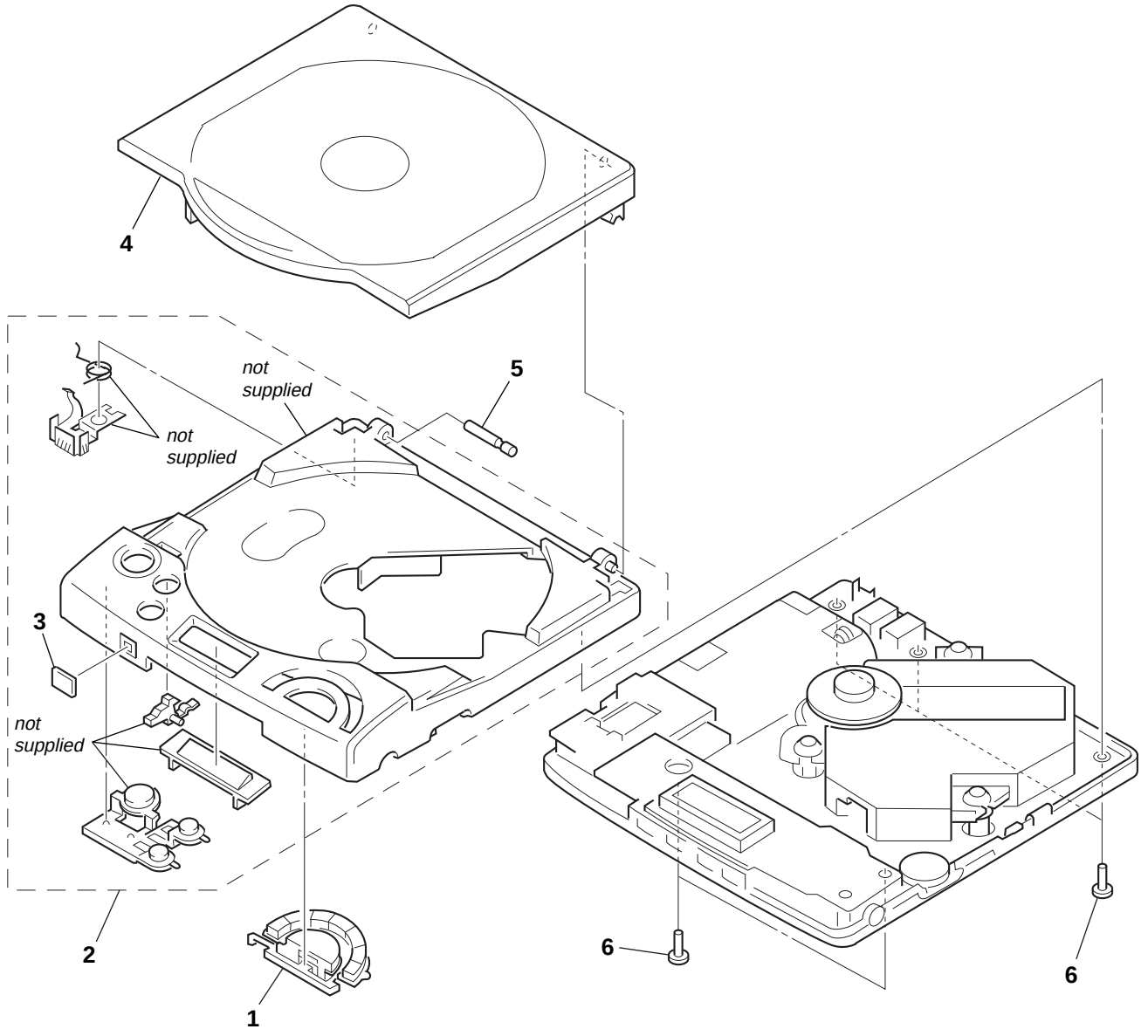
SECTION 7
EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

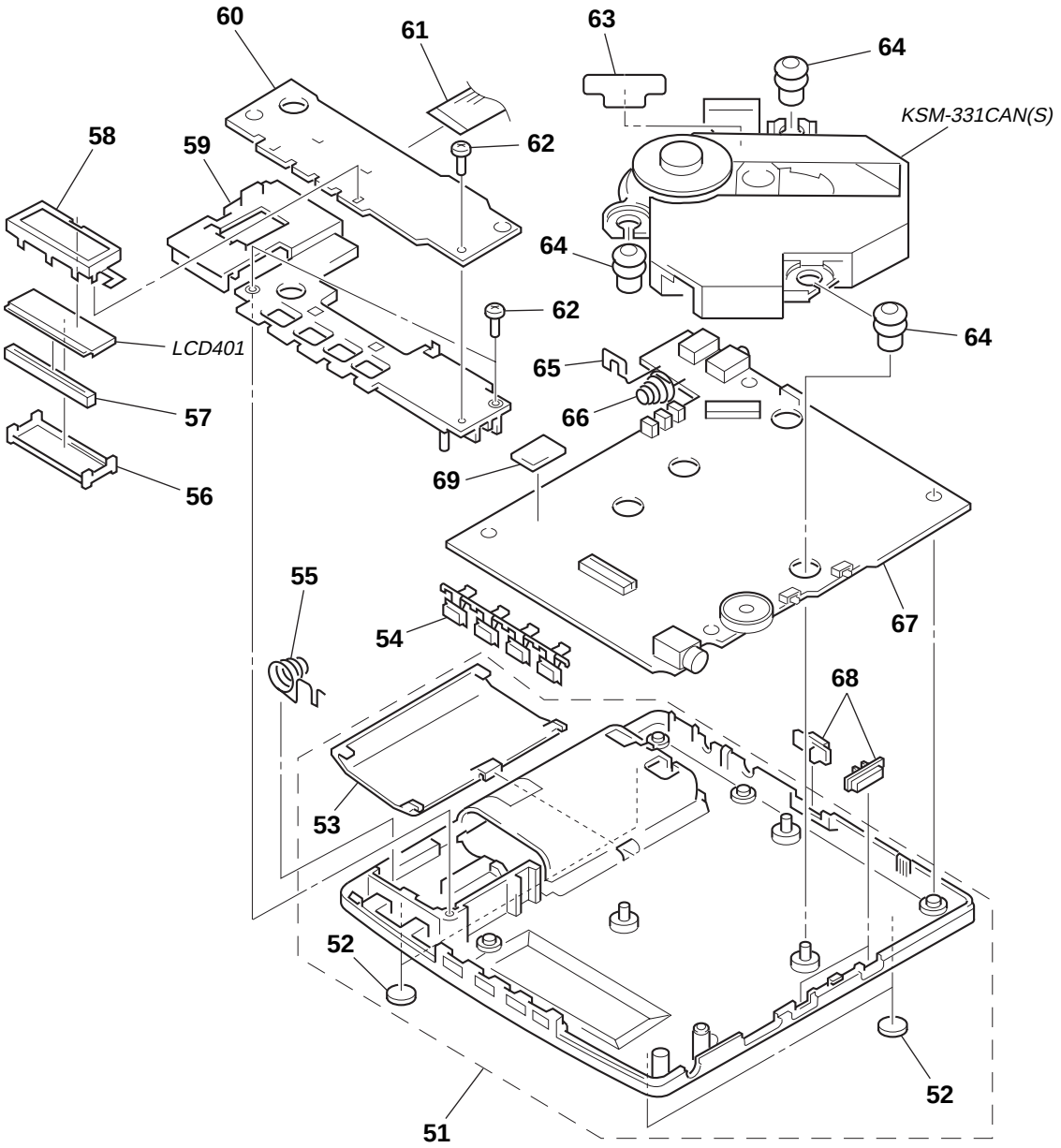
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

(1) CABINET SECTION-1



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-996-341-01	BUTTON, CONTROL		4	A-3320-060-A	LID BLOCK ASSY, UPPER	
2	X-4949-052-1	CABINET (UPPER) ASSY		5	4-996-352-01	SHAFT	
3	4-982-475-01	WINDOW, RAY CATCHER		6	3-336-395-01	SCREW (B2X10), TAPPING	

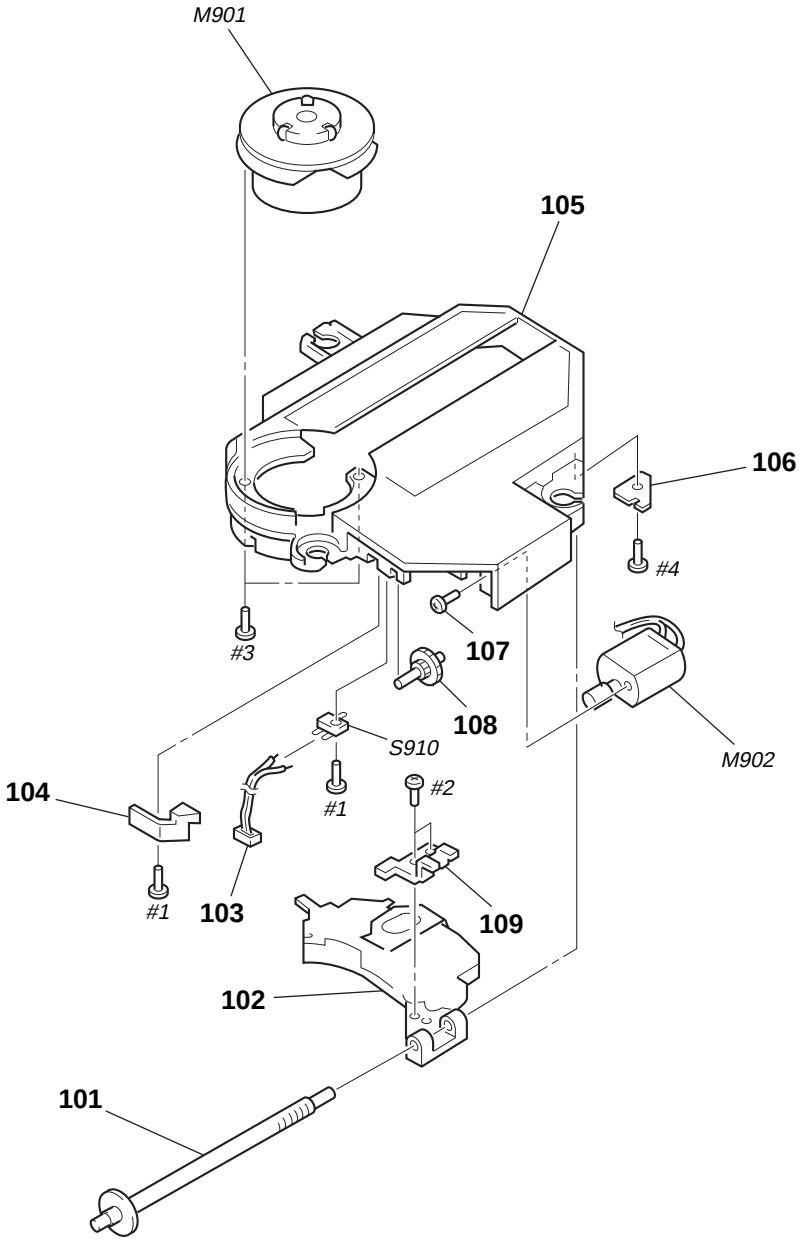
(2) CABINET SECTION-2



Ref. No.	Part No.	Description	Remark
51	X-4949-051-1	CABINET (LOWER) ASSY	
52	4-962-025-21	FOOT, RUBBER	
53	4-996-333-01	LID, BATTERY CASE	
54	4-996-334-01	BUTTON, FRONT	
55	4-996-339-01	TERMINAL (RELAY), BATTERY	
56	1-475-520-11	LIGHT UNIT, BACK	
57	1-694-374-11	CONDUCTIVE BOARD, CONNECTION	
58	4-996-338-01	HOLDER, LCD	
59	4-996-337-01	BASE, BUTTON	
60	A-3321-005-A	LCD BOARD, COMPLETE	

Ref. No.	Part No.	Description	Remark
61	1-776-149-11	FLEXIBLE FLAT CABLE	
62	4-982-491-01	SCREW (2X8), TAPPING	
63	4-956-818-01	RETAINER, FLEXIBLE	
64	4-975-811-01	INSULATOR	
65	4-996-335-01	TERMINAL (+), BATTERY	
66	4-996-336-01	TERMINAL (–), BATTERY	
67	A-3293-778-A	MAIN BOARD, COMPLETE	
68	4-975-765-01	KNOB (DBB/ESP)	
* 69	1-669-608-11	SUB BOARD	
LCD401	1-801-975-11	DISPLAY PANEL, LIQUID CRYSTAL	

(3) OPTICAL PICK-UP SECTION (KSM-331CAN (S))



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
101	X-2625-483-1	SCREW ASSY, SLED	
⚠102	8-848-295-51	OPTICAL PICK-UP KSS-331C	
103	1-948-418-21	HARNESS	
104	2-625-412-02	SPRING, SLED	
105	2-625-415-05	CHASSIS, MD	
106	2-625-411-01	RETAINER, SHAFT	
107	3-732-988-01	SCREW (M2X2.5)	
108	2-625-410-01	GEAR (B)	
109	2-625-414-02	RACK	
M901	X-2625-485-1	MOTOR ASSY (MS), T.T. (SPINDLE)	
M902	X-2625-171-2	MOTOR ASSY, SLED	
S910	1-570-771-11	SWITCH (LIMIT)	

SECTION 8
ELECTRICAL PARTS LIST

LCD **MAIN**

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-3321-005-A	LCD BOARD, COMPLETE			
		**********			
	1-776-149-11	FLEXIBLE CABLE, FLAT (FCR-1)			
	4-996-337-01	BASE, BUTTON			
	4-996-338-01	HOLDER, LCD			
		< CAPACITOR >			
C401	1-115-156-11	CERAMIC CHIP	1uF		10V
C402	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C403	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C404	1-115-416-11	CERAMIC CHIP	1000PF	5%	25V
		< CONNECTOR >			
CN401	1-573-370-21	CONNECTOR, FFC/FPC 30P			
		< IC >			
IC401	8-749-014-29	IC RS-350			
		< RESISTOR >			
R401	1-216-813-11	METAL CHIP	220	5%	1/16W
R402	1-216-158-00	RES, CHIP	22		(3216)
R403	1-216-813-11	METAL CHIP	220	5%	1/16W
R421	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R422	1-218-696-11	METAL CHIP	1.5K	0.5%	1/16W
R423	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R424	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W
R425	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R441	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R442	1-218-696-11	METAL CHIP	1.5K	0.5%	1/16W
R443	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R444	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W
R445	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
		< SWITCH >			
S401	1-771-273-21	SWITCH, PUSH (OPEN)			
S421	1-762-366-21	SWITCH, TACTILE (□ POWER OFF)			
S422	1-762-366-21	SWITCH, TACTILE (○ SELECT)			
S423	1-762-366-21	SWITCH, TACTILE (MEGA BASS)			
S424	1-762-366-21	SWITCH, TACTILE (ESP)			
S425	1-762-366-21	SWITCH, TACTILE (PLAY MODE)			
S426	1-762-366-21	SWITCH, TACTILE (REPEAT/ENTER)			
S441	1-762-366-21	SWITCH, TACTILE (↶ RETURN)			
S442	1-762-366-21	SWITCH, TACTILE (– MENU)			
S443	1-762-366-21	SWITCH, TACTILE (⏮ PREV)			
S444	1-762-366-21	SWITCH, TACTILE (▷⏸)			
S445	1-762-366-21	SWITCH, TACTILE (▷▷⏭ NEXT)			
S446	1-762-366-21	SWITCH, TACTILE (+ MENU)			
	A-3293-778-A	MAIN BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-107-686-11	TANTAL. CHIP	4.7uF	20%	16V
C102	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C103	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C104	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C105	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C106	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C107	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C201	1-107-686-11	TANTAL. CHIP	4.7uF	20%	16V
C202	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C203	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C204	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C205	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C206	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C207	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C301	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C321	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C322	1-126-209-11	ELECT CHIP	100uF	20%	4V
C323	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C324	1-126-246-11	ELECT CHIP	220uF	20%	4V
C325	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C326	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C327	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C328	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C329	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C330	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C332	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C360	1-104-915-11	TANTAL. CHIP	2.2uF	20%	20V
C361	1-115-156-11	CERAMIC CHIP	1uF		10V
C362	1-126-602-11	ELECT CHIP	3.3uF	20%	50V
C363	1-115-156-11	CERAMIC CHIP	1uF		10V

MAIN

Ref. No.	Part No.	Description			Remark
C364	1-164-346-11	CERAMIC CHIP	1uF		16V
C366	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C367	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C368	1-124-779-00	ELECT CHIP	10uF	20%	16V
C369	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C370	1-126-395-11	ELECT	22uF	20%	16V
C371	1-115-156-11	CERAMIC CHIP	1uF		10V
C372	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C373	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C374	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C500	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C501	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C502	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C503	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C504	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C505	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C507	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C508	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C510	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C511	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C512	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C513	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C515	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C516	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C517	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C518	1-104-915-11	TANTAL. CHIP	2.2uF	20%	20V
C523	1-126-246-11	ELECT CHIP	220uF	20%	4V
C524	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C601	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C602	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C603	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C604	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C605	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C606	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C607	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C608	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C609	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C610	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C611	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C613	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C614	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C615	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C616	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C617	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C618	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C619	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C680	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C682	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C684	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C701	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C702	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C703	1-115-416-11	CERAMIC CHIP	1000PF	5%	25V
C707	1-115-156-11	CERAMIC CHIP	1uF		10V
C708	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C711	1-135-208-11	TANTAL. CHIP	1uF	20%	10V
C801	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C802	1-126-193-11	ELECT	1uF	20%	50V
C803	1-164-156-11	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description			Remark
C810	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C811	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C812	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C820	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C821	1-115-156-11	CERAMIC CHIP	1uF		10V
C822	1-124-779-00	ELECT CHIP	10uF	20%	16V
C823	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C826	1-119-764-21	ELECT	47uF		4V
C827	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C828	1-115-416-11	CERAMIC CHIP	1000PF	5%	25V
C860	1-128-416-11	ELECT CHIP	100uF	20%	16V
C861	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C862	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C863	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C864	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C865	1-104-915-11	TANTAL. CHIP	2.2uF	20%	20V
C867	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C869	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C870	1-115-416-11	CERAMIC CHIP	1000PF	5%	25V
C872	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C873	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C881	1-119-764-21	ELECT	47uF		4V
C882	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C883	1-115-416-11	CERAMIC CHIP	1000PF	5%	25V
C884	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C890	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C891	1-128-416-11	ELECT CHIP	100uF	20%	16V
C892	1-119-765-21	ELECT	47uF		6.3V
C895	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C901	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C902	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C903	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C904	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C905	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C906	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C907	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C908	1-119-944-21	ELECT	470uF		4V
C915	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C916	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C917	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C920	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C921	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C922	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C923	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C924	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C925	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C926	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C927	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C928	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C929	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C930	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C931	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C932	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C933	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C935	1-115-416-11	CERAMIC CHIP	1000PF	5%	25V
C936	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C937	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V

Ref. No.	Part No.	Description			Remark
C960	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C961	1-115-156-11	CERAMIC CHIP	1uF		10V
C962	1-104-914-11	TANTAL. CHIP	22uF	20%	16V
C963	1-119-944-21	ELECT	470uF		4V
C966	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
		< CONNECTOR >			
CN501	1-566-534-11	CONNECTOR, FPC (ZIF) 18P			
* CN502	1-695-320-31	PIN, CONNECTOR (1.5MM) (SMD) 2P			
* CN503	1-695-320-21	PIN, CONNECTOR (1.5MM) (SMD) 2P			
* CN504	1-695-320-51	PIN, CONNECTOR (1.5MM) (SMD) 2P			
* CN701	1-573-939-11	CONNECTOR, FFC/FPC (ZIF) 30P			
		< DIODE >			
D101	8-719-039-99	DIODE UMZ8.2T			
D105	8-719-039-99	DIODE UMZ8.2T			
D201	8-719-039-99	DIODE UMZ8.2T			
D205	8-719-039-99	DIODE UMZ8.2T			
D206	8-719-039-99	DIODE UMZ8.2T			
D302	8-719-039-99	DIODE UMZ8.2T			
D340	8-719-988-78	DIODE SB007W03Q			
D501	8-719-988-78	DIODE SB007W03Q			
D502	8-719-039-99	DIODE UMZ8.2T			
D504	8-719-404-49	DIODE MA111			
D601	8-719-024-81	DIODE 1SS300-TE85L			
D602	8-719-049-09	DIODE 1SS367-T3SONY			
D805	8-719-048-98	DIODE RB160L-40TE25			
D808	8-719-048-98	DIODE RB160L-40TE25			
D820	8-719-048-98	DIODE RB160L-40TE25			
D880	8-719-048-98	DIODE RB160L-40TE25			
D890	8-719-048-98	DIODE RB160L-40TE25			
D891	8-719-049-09	DIODE 1SS367-T3SONY			
D901	8-719-056-66	DIODE 1SS378-TE85L			
D961	8-719-039-99	DIODE UMZ8.2T			
		< FERRITE BEAD >			
FB101	1-500-444-11	INDUCTOR 0uH			
FB102	1-500-444-11	INDUCTOR 0uH			
FB201	1-500-444-11	INDUCTOR 0uH			
FB202	1-500-444-11	INDUCTOR 0uH			
FB306	1-500-444-11	INDUCTOR 0uH			
FB605	1-414-656-11	INDUCTOR 0uH			
FB680	1-414-656-11	INDUCTOR 0uH			
FB681	1-414-656-11	INDUCTOR 0uH			
FB701	1-500-444-11	INDUCTOR 0uH			
FB702	1-500-444-11	INDUCTOR 0uH			
FB703	1-414-656-11	INDUCTOR 0uH			
FB960	1-414-656-11	INDUCTOR 0uH			
FB962	1-414-656-11	INDUCTOR 0uH			
		< IC >			
IC301	8-759-186-51	IC TC74VHC157F			
IC320	8-759-459-18	IC TC9434AFNEL			
IC360	8-759-386-50	IC BA3574BFS-T1			
IC501	8-752-069-29	IC CXA1791N			
IC502	8-759-442-80	IC MPC17A38ZVMEL			
IC601	8-752-369-78	IC CXD2545Q			
IC602	8-759-179-64	IC BA3890F			
IC603	8-759-396-26	IC SN74LV08PW-E20			

Ref. No.	Part No.	Description	Remark
IC680	8-759-493-51	IC RS5C357	
IC681	8-759-498-44	IC MSM51V4400D-70TSK	
IC701	8-759-493-54	IC MSM65354-406GS-BK4	
IC702	8-759-442-79	IC RH5VL27AA-T1	
IC801	8-759-085-76	IC S-81332HG-KC-T1	
IC820	8-759-521-35	IC TL5001CD	
IC861	8-759-360-66	IC TL1453CPW-E20	
IC862	8-759-066-61	IC TC4053BFS	
IC901	8-759-493-57	IC ES3210	
IC902	8-759-493-50	IC MX27C1000TC-90	
IC903	8-759-498-43	IC MSM54V16258ASL-45TSK	
IC920	8-759-493-55	IC TC90A07U	
IC921	8-759-085-76	IC S-81332HG-KC-T1	
IC960	8-759-433-44	IC MM1031XML	
		< JACK >	
J301	1-565-287-11	JACK (🎧 PHONES)	
J801	1-778-153-11	JACK, DC (POLARITY UNIFIED TYPE)	(DC IN 6V)
J901	1-778-040-11	JACK, SMALL TYPE (AUDIO/VIDEO OUT)	
		< COIL >	
L301	1-412-002-31	INDUCTOR CHIP 4.7uH	
L320	1-412-002-31	INDUCTOR CHIP 4.7uH	
L321	1-412-002-31	INDUCTOR CHIP 4.7uH	
L322	1-412-002-31	INDUCTOR CHIP 4.7uH	
L323	1-412-979-21	INDUCTOR 1uH	
L501	1-414-398-11	INDUCTOR 10uH	
L502	1-414-398-11	INDUCTOR 10uH	
L503	1-414-854-11	INDUCTOR 1mH	
L504	1-414-404-11	INDUCTOR 100uH	
L505	1-414-404-11	INDUCTOR 100uH	
L601	1-410-997-31	INDUCTOR CHIP 2.2uH	
L602	1-410-997-31	INDUCTOR CHIP 2.2uH	
L801	1-414-392-21	INDUCTOR 1uH	
L820	1-414-526-21	INDUCTOR 47uH	
L880	1-414-526-21	INDUCTOR 47uH	
L901	1-414-392-21	INDUCTOR 1uH	
L902	1-410-997-31	INDUCTOR CHIP 2.2uH	
L921	1-412-979-21	INDUCTOR 1uH	
L923	1-414-398-11	INDUCTOR 10uH	
L924	1-410-997-31	INDUCTOR CHIP 2.2uH	
L925	1-410-997-31	INDUCTOR CHIP 2.2uH	
L960	1-410-993-11	INDUCTOR CHIP 1uH	
L961	1-412-002-31	INDUCTOR CHIP 4.7uH	
		< TRANSISTOR >	
Q101	8-729-231-74	TRANSISTOR 2SC4116-GL	
Q201	8-729-231-74	TRANSISTOR 2SC4116-GL	
Q340	8-729-907-39	TRANSISTOR IMD2	
Q341	8-729-231-74	TRANSISTOR 2SC4116-GL	
Q342	8-729-029-14	TRANSISTOR DTC144EUA-T106	
Q501	8-729-904-86	TRANSISTOR 2SB1197K-Q	
Q502	8-729-921-05	TRANSISTOR FMC3-T148	
Q503	8-729-930-32	TRANSISTOR UMH11	
Q504	8-729-930-32	TRANSISTOR UMH11	
Q505	8-729-029-14	TRANSISTOR DTC144EUA-T106	

MAIN

Ref. No.	Part No.	Description			Remark
Q506	8-729-231-74	TRANSISTOR	2SC4116-GL		
Q507	8-729-029-14	TRANSISTOR	DTC144EUA-T106		
Q508	8-729-029-14	TRANSISTOR	DTC144EUA-T106		
Q509	8-729-028-91	TRANSISTOR	DTA144EUA-T106		
Q601	8-729-029-14	TRANSISTOR	DTC144EUA-T106		
Q701	8-729-928-70	TRANSISTOR	DTA143TE-TL		
Q702	8-729-202-38	TRANSISTOR	2SC3326N		
Q703	8-729-028-91	TRANSISTOR	DTA144EUA-T106		
Q801	8-729-904-86	TRANSISTOR	2SB1197K-Q		
Q802	8-729-903-10	TRANSISTOR	FMW1		
Q803	8-729-930-32	TRANSISTOR	UMH11		
Q810	8-729-930-32	TRANSISTOR	UMH11		
Q820	8-729-028-91	TRANSISTOR	DTA144EUA-T106		
Q822	8-729-043-79	TRANSISTOR	2SJ517TL		
Q861	8-729-921-05	TRANSISTOR	FMC3-T148		
Q881	8-729-043-79	TRANSISTOR	2SJ517TL		
Q882	8-729-043-79	TRANSISTOR	2SJ517TL		
Q891	8-729-024-44	TRANSISTOR	2SK2315TYTR		
		< RESISTOR >			
R101	1-216-821-11	METAL CHIP	1K	5%	1/16W
R102	1-216-845-11	METAL CHIP	100K	5%	1/16W
R103	1-216-834-11	METAL CHIP	12K	5%	1/16W
R105	1-216-821-11	METAL CHIP	1K	5%	1/16W
R106	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R107	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R108	1-216-813-11	METAL CHIP	220	5%	1/16W
R201	1-216-821-11	METAL CHIP	1K	5%	1/16W
R202	1-216-845-11	METAL CHIP	100K	5%	1/16W
R203	1-216-834-11	METAL CHIP	12K	5%	1/16W
R205	1-216-821-11	METAL CHIP	1K	5%	1/16W
R206	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R207	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R208	1-216-813-11	METAL CHIP	220	5%	1/16W
R301	1-216-809-11	METAL CHIP	100	5%	1/16W
R302	1-216-809-11	METAL CHIP	100	5%	1/16W
R303	1-216-809-11	METAL CHIP	100	5%	1/16W
R311	1-216-845-11	METAL CHIP	100K	5%	1/16W
R313	1-216-864-11	METAL CHIP	0	5%	1/16W
R314	1-216-857-11	METAL CHIP	1M	5%	1/16W
R315	1-216-837-11	METAL CHIP	22K	5%	1/16W
R316	1-216-821-11	METAL CHIP	1K	5%	1/16W
R320	1-216-803-11	METAL CHIP	33	5%	1/16W
R323	1-216-857-11	METAL CHIP	1M	5%	1/16W
R324	1-216-809-11	METAL CHIP	100	5%	1/16W
R325	1-216-809-11	METAL CHIP	100	5%	1/16W
R326	1-216-809-11	METAL CHIP	100	5%	1/16W
R501	1-218-667-11	METAL CHIP	91	0.5%	1/16W
R502	1-218-735-11	METAL CHIP	62K	0.5%	1/16W
R503	1-218-735-11	METAL CHIP	62K	0.5%	1/16W
R504	1-218-735-11	METAL CHIP	62K	0.5%	1/16W
R505	1-218-735-11	METAL CHIP	62K	0.5%	1/16W
R506	1-218-739-11	METAL CHIP	91K	0.5%	1/16W
R507	1-218-739-11	METAL CHIP	91K	0.5%	1/16W
R508	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R509	1-216-845-11	METAL CHIP	100K	5%	1/16W
R510	1-216-821-11	METAL CHIP	1K	5%	1/16W
R511	1-216-837-11	METAL CHIP	22K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R512	1-216-843-11	METAL CHIP	68K	5%	1/16W
R513	1-216-833-11	METAL CHIP	10K	5%	1/16W
R514	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R515	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R516	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R517	1-216-835-11	METAL CHIP	15K	5%	1/16W
R519	1-216-833-11	METAL CHIP	10K	5%	1/16W
R520	1-216-841-11	METAL CHIP	47K	5%	1/16W
R521	1-216-839-11	METAL CHIP	33K	5%	1/16W
R522	1-216-843-11	METAL CHIP	68K	5%	1/16W
R523	1-218-743-11	METAL CHIP	130K	0.5%	1/16W
R524	1-216-850-11	METAL CHIP	270K	5%	1/16W
R525	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R526	1-216-835-11	METAL CHIP	15K	5%	1/16W
R527	1-216-845-11	METAL CHIP	100K	5%	1/16W
R528	1-216-857-11	METAL CHIP	1M	5%	1/16W
R530	1-216-821-11	METAL CHIP	1K	5%	1/16W
R531	1-216-845-11	METAL CHIP	100K	5%	1/16W
R532	1-216-861-11	METAL CHIP	2.2M	5%	1/16W
R533	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R534	1-216-809-11	METAL CHIP	100	5%	1/16W
R536	1-216-295-11	SHORT		0	
R541	1-216-841-11	METAL CHIP	47K	5%	1/16W
R542	1-216-821-11	METAL CHIP	1K	5%	1/16W
R543	1-216-821-11	METAL CHIP	1K	5%	1/16W
R601	1-216-845-11	METAL CHIP	100K	5%	1/16W
R602	1-216-839-11	METAL CHIP	33K	5%	1/16W
R603	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R604	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R605	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R606	1-216-857-11	METAL CHIP	1M	5%	1/16W
R607	1-216-833-11	METAL CHIP	10K	5%	1/16W
R608	1-216-864-11	METAL CHIP	0	5%	1/16W
R609	1-216-813-11	METAL CHIP	220	5%	1/16W
R610	1-216-864-11	METAL CHIP	0	5%	1/16W
R611	1-216-841-11	METAL CHIP	47K	5%	1/16W
R612	1-218-740-11	METAL CHIP	100K	0.5%	1/16W
R613	1-216-864-11	METAL CHIP	0	5%	1/16W
R614	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R615	1-216-864-11	METAL CHIP	0	5%	1/16W
R618	1-216-809-11	METAL CHIP	100	5%	1/16W
R619	1-216-833-11	METAL CHIP	10K	5%	1/16W
R620	1-216-833-11	METAL CHIP	10K	5%	1/16W
R621	1-216-809-11	METAL CHIP	100	5%	1/16W
R622	1-216-809-11	METAL CHIP	100	5%	1/16W
R623	1-216-809-11	METAL CHIP	100	5%	1/16W
R681	1-216-833-11	METAL CHIP	10K	5%	1/16W
R682	1-216-864-11	METAL CHIP	0	5%	1/16W
R683	1-216-864-11	METAL CHIP	0	5%	1/16W
R684	1-216-809-11	METAL CHIP	100	5%	1/16W
R700	1-216-853-11	METAL CHIP	470K	5%	1/16W
R701	1-216-845-11	METAL CHIP	100K	5%	1/16W
R702	1-216-845-11	METAL CHIP	100K	5%	1/16W
R703	1-216-864-11	METAL CHIP	0	5%	1/16W
R704	1-216-853-11	METAL CHIP	470K	5%	1/16W
R705	1-216-833-11	METAL CHIP	10K	5%	1/16W
R706	1-216-833-11	METAL CHIP	10K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R707	1-216-857-11	METAL CHIP	1M	5%	1/16W
R708	1-216-853-11	METAL CHIP	470K	5%	1/16W
R709	1-216-845-11	METAL CHIP	100K	5%	1/16W
R710	1-216-853-11	METAL CHIP	470K	5%	1/16W
R711	1-216-853-11	METAL CHIP	470K	5%	1/16W
R712	1-216-853-11	METAL CHIP	470K	5%	1/16W
R713	1-216-853-11	METAL CHIP	470K	5%	1/16W
R714	1-216-813-11	METAL CHIP	220	5%	1/16W
R715	1-216-845-11	METAL CHIP	100K	5%	1/16W
R716	1-216-851-11	METAL CHIP	330K	5%	1/16W
R801	1-218-742-11	METAL CHIP	120K	0.5%	1/16W
R802	1-218-740-11	METAL CHIP	100K	0.5%	1/16W
R803	1-218-752-11	METAL CHIP	330K	0.5%	1/16W
R804	1-216-295-11	SHORT	0		
R810	1-216-833-11	METAL CHIP	10K	5%	1/16W
R811	1-216-847-11	METAL CHIP	150K	5%	1/16W
R812	1-216-821-11	METAL CHIP	1K	5%	1/16W
R813	1-216-817-11	METAL CHIP	470	5%	1/16W
R814	1-216-295-11	SHORT	0		
R820	1-218-731-11	METAL CHIP	43K	0.5%	1/16W
R821	1-218-733-11	METAL CHIP	51K	0.5%	1/16W
R822	1-216-833-11	METAL CHIP	10K	5%	1/16W
R824	1-216-801-11	METAL CHIP	22	5%	1/16W
R826	1-216-857-11	METAL CHIP	1M	5%	1/16W
R827	1-218-722-11	METAL CHIP	18K	0.5%	1/16W
R828	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R860	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R861	1-218-732-11	METAL CHIP	47K	0.5%	1/16W
R862	1-218-730-11	METAL CHIP	39K	0.5%	1/16W
R863	1-218-730-11	METAL CHIP	39K	0.5%	1/16W
R864	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R865	1-218-732-11	METAL CHIP	47K	0.5%	1/16W
R866	1-218-730-11	METAL CHIP	39K	0.5%	1/16W
R867	1-218-730-11	METAL CHIP	39K	0.5%	1/16W
R869	1-216-833-11	METAL CHIP	10K	5%	1/16W
R870	1-218-723-11	METAL CHIP	20K	0.5%	1/16W
R871	1-216-833-11	METAL CHIP	10K	5%	1/16W
R872	1-216-833-11	METAL CHIP	10K	5%	1/16W
R873	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R874	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R880	1-216-801-11	METAL CHIP	22	5%	1/16W
R881	1-216-857-11	METAL CHIP	1M	5%	1/16W
R883	1-218-727-11	METAL CHIP	30K	0.5%	1/16W
R884	1-218-722-11	METAL CHIP	18K	0.5%	1/16W
R885	1-216-857-11	METAL CHIP	1M	5%	1/16W
R886	1-216-864-11	METAL CHIP	0	5%	1/16W
R887	1-216-295-11	SHORT	0		
R888	1-216-295-11	SHORT	0		
R892	1-216-857-11	METAL CHIP	1M	5%	1/16W
R893	1-216-295-11	SHORT	0		
R896	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R897	1-218-714-11	METAL CHIP	8.2K	0.5%	1/16W
R898	1-216-295-11	SHORT	0		
R901	1-216-833-11	METAL CHIP	10K	5%	1/16W
R904	1-216-845-11	METAL CHIP	100K	5%	1/16W
R910	1-216-809-11	METAL CHIP	100	5%	1/16W
R911	1-216-809-11	METAL CHIP	100	5%	1/16W
R912	1-216-809-11	METAL CHIP	100	5%	1/16W
R913	1-216-809-11	METAL CHIP	100	5%	1/16W
R914	1-216-809-11	METAL CHIP	100	5%	1/16W
R915	1-216-809-11	METAL CHIP	100	5%	1/16W
R920	1-216-845-11	METAL CHIP	100K	5%	1/16W
R921	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R922	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R923	1-216-845-11	METAL CHIP	100K	5%	1/16W
R924	1-216-857-11	METAL CHIP	1M	5%	1/16W
R925	1-216-845-11	METAL CHIP	100K	5%	1/16W
R926	1-216-845-11	METAL CHIP	100K	5%	1/16W
R927	1-216-845-11	METAL CHIP	100K	5%	1/16W
R929	1-216-809-11	METAL CHIP	100	5%	1/16W
R930	1-216-809-11	METAL CHIP	100	5%	1/16W
R932	1-216-833-11	METAL CHIP	10K	5%	1/16W
R960	1-216-809-11	METAL CHIP	100	5%	1/16W
R961	1-218-285-11	METAL CHIP	75	5%	1/10W
R962	1-216-833-11	METAL CHIP	10K	5%	1/16W
R963	1-216-821-11	METAL CHIP	1K	5%	1/16W

< COMPOSITION CIRCUIT BLOCK >

RB901	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4
RB902	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4
RB903	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4
RB904	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4
RB905	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4
RB906	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4
RB907	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4
RB908	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4
RB909	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4
RB910	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4
RB911	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4
RB913	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4
RB914	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4
RB915	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4
RB916	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4
RB917	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4

< VARIABLE RESISTOR >

RV301	1-225-570-21	RES, VAR 10Kx10K (◢ VOLUME)

< SWITCH >

S701	1-572-922-11	SWITCH, SLIDE (HOLD ▬◣)
S702	1-572-922-11	SWITCH, SLIDE (RESUME)
S703	1-692-605-31	SWITCH, SLIDE (VIDEO SYSTEM PAL/AUTO/NTSC)

< TRANSFORMER >

T891	1-431-652-21	TRANSFORMER, DC-DC CONVERTER

< VIBRATOR >

X320	1-767-366-21	VIBRATOR, CERAMIC (16.9344MHz)
X701	1-579-063-21	VIBRATOR, CERAMIC (4.19MHz)
X920	1-767-519-11	VIBRATOR, CRYSTAL (27MHz)

****

SUB

Ref. No.	Part No.	Description			Remark
*	1-669-608-11	SUB BOARD			
		**********			
		< IC >			
IC1	8-759-530-69	IC XC61A4502			
		< TRANSISTOR >			
Q1	8-729-907-00	TRANSISTOR DTC114EUA-T106			
		< RESISTOR >			
R1	1-216-809-11	METAL CHIP	100	5%	1/16W
R3	1-216-809-11	METAL CHIP	100	5%	1/16W
		MISCELLANEOUS			
		**********			
56	1-475-520-11	LIGHT UNIT, BACK			
57	1-694-374-11	CONDUCTIVE BOARD, CONNECTION			
61	1-776-149-11	FLEXIBLE FLAT CABLE			
⚠102	8-848-295-51	OPTICAL PICK-UP KSS-331C			
103	1-948-418-21	HARNESS			
LCD401	1-801-975-11	DISPLAY PANEL, LIQUID CRYSTAL			
M901	X-2625-485-1	MOTOR ASSY (MS), T.T. (SPINDLE)			
M902	X-2625-171-2	MOTOR ASSY, SLED			
S910	1-570-771-11	SWITCH (LIMIT)			
**********					
		**********			
		HARDWARE LIST			
		**********			
#1	7-685-105-19	SCREW (2X8), TAPPING (B)			
#2	7-627-852-17	+P 1.7X4			
#3	7-627-852-18	SCREW, PRECISION +P 1.7X4 TYPE3			
#4	7-685-104-19	SCREW (2X6), TAPPING (B)			
**********					
		ACCESSORIES & PACKING MATERIALS			
		**********			
⚠	1-467-570-31	ADAPTOR, AC (AC-E60HG) (E)			
⚠	1-475-609-11	ADAPTOR, AC (AC-E67) (Chinese)			
	1-783-028-11	CORD (WITH PLUG) (AV MONITOR CORD)			
	3-861-942-11	MANUAL, INSTRUCTION (ENGLISH,CHINESE)			
	3-861-942-21	MANUAL, INSTRUCTION (JAPANESE, KOREAN) (Tourist)			
	4-991-047-01	LID, BATTERY CASE (for RM-DV8000)			
	8-917-618-90	REMOTE COMMADER RM-DV8000			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

9-923-278-11

Sony Corporation
Personal A&V Products Company

97K057015-1
Printed in Singapore © 1997. 11
Published by Quality Engineering Dept. (Shibaura)

D-V8000

SONY

E Model
Chinese Model
Tourist Model

SERVICE MANUAL

1998. 12

SUPPLEMENT-2

File this supplement with the service manual.

Subject:
1. Correction
2. Board Modification

(ENG-98010)

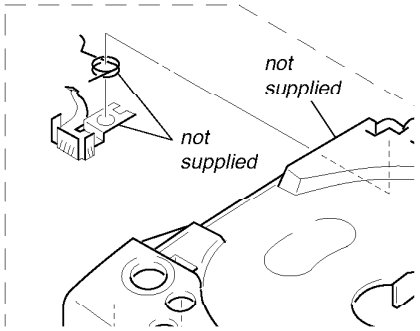
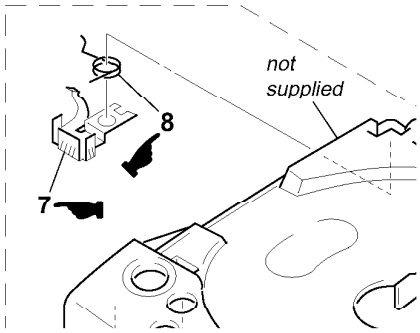
TABLE OF CONTENTS

1. CORRECTION 2

2. BOARD MODIFICATION 3
2-1. New/Former Discrimination 3
2-2. Printed Wiring Board – MAIN Board – 4
2-3. Schematic Diagram – MAIN Board (1/2) – 7
2-4. Schematic Diagram – MAIN Board (2/2) – 12
2-5. Printed Wiring Board – LCD Board – 15
2-6. Schematic Diagram –LCD Board – 17
2-7. Exploded Views 19
2-8. Electrical Parts List 21

1. CORRECTION

☛ : indicates corrected portion.

<table>
<tr><th>Page</th><th>Incorrect</th><th>Correct</th></tr>
<tr><td rowspan="2">62</td><td> 
</td><td> 
</td></tr>
<tr><td>Ref. No. Part No. Description Remark
not supplied
not supplied</td><td>Ref. No. Part No. Description Remark
7 4-996-347-01 SPRING (LOCK)
* 8 4-996-344-02 SPRING (OPEN)</td></tr>
</table>

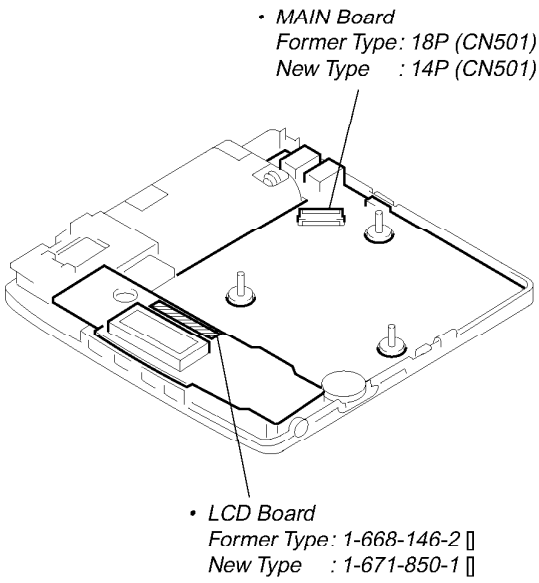
• Items marked "*" are not stocked since they are seldom required for routine service.
Some delay should be anticipated when ordering these items.

2. BOARD MODIFICATION

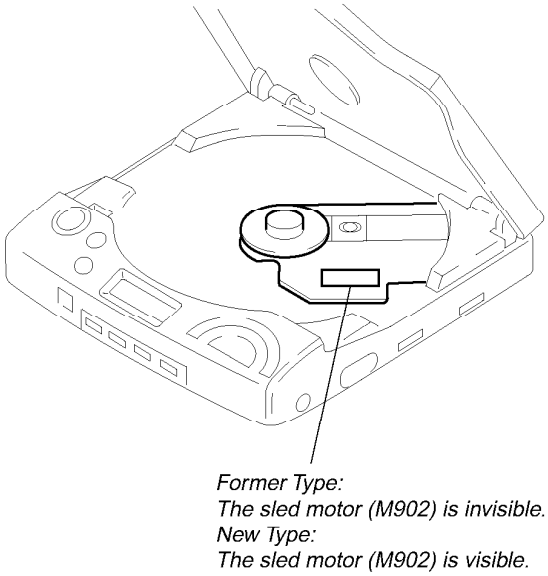
MAIN and LCD boards were been changed in the middle of production. At the same time, the optical pick-up block was changed from KSM-331CAN (S) to CDM-2401AAA. This supplement contains only new optical pick-up block, MAIN and LCD boards.

2-1. NEW/FORMER TYPE DISCRIMINATION

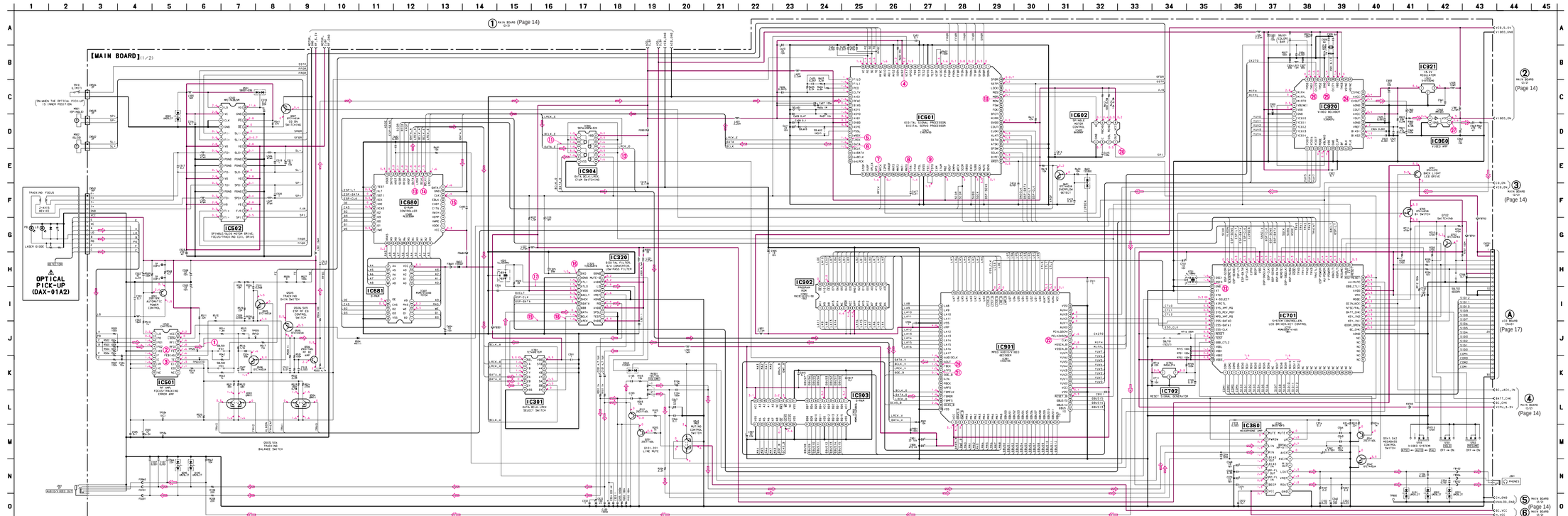
- MAIN and LCD Boards



- Optical Pick-up Block



2-3. SCHEMATIC DIAGRAM – MAIN BOARD (1/2) –



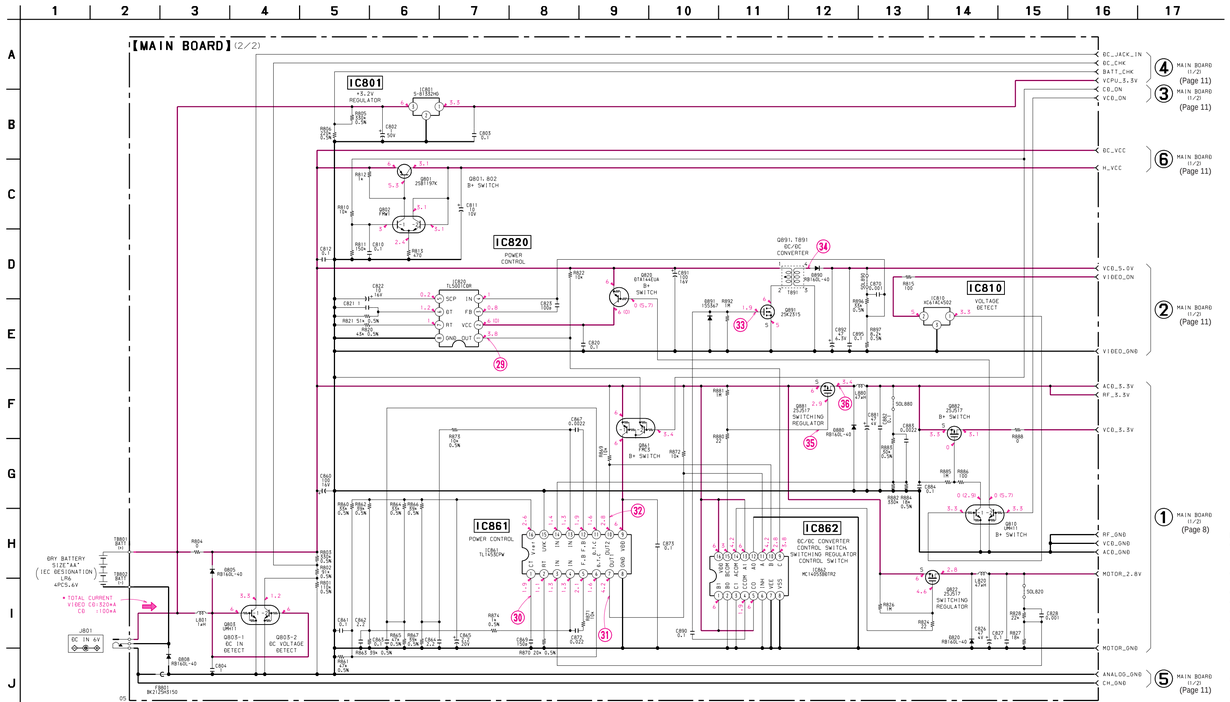
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantaliums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- Δ : internal component.
- ▭ : panel designation.

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- ▬▬ : B+ Line.
- Power voltage is dc 6 V and fed with regulated dc power supply from external power voltage jack.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : VIDEO CD PLAY
  ( ) : CD PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : VIDEO
  ⇨ : CD

2-4. SCHEMATIC DIAGRAM – MAIN BOARD (2/2) –



Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- % : indicates tolerance.
- ▭ : panel designation.
- ▬ : B+ Line.
- Power voltage is dc 6 V and fed with regulated dc power supply from external power voltage jack.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : VIDEO CD PLAY
  ( ) : CD PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

2-5. PRINTED WIRING BOARD – LCD BOARD –

Note on Printed Wiring Board:

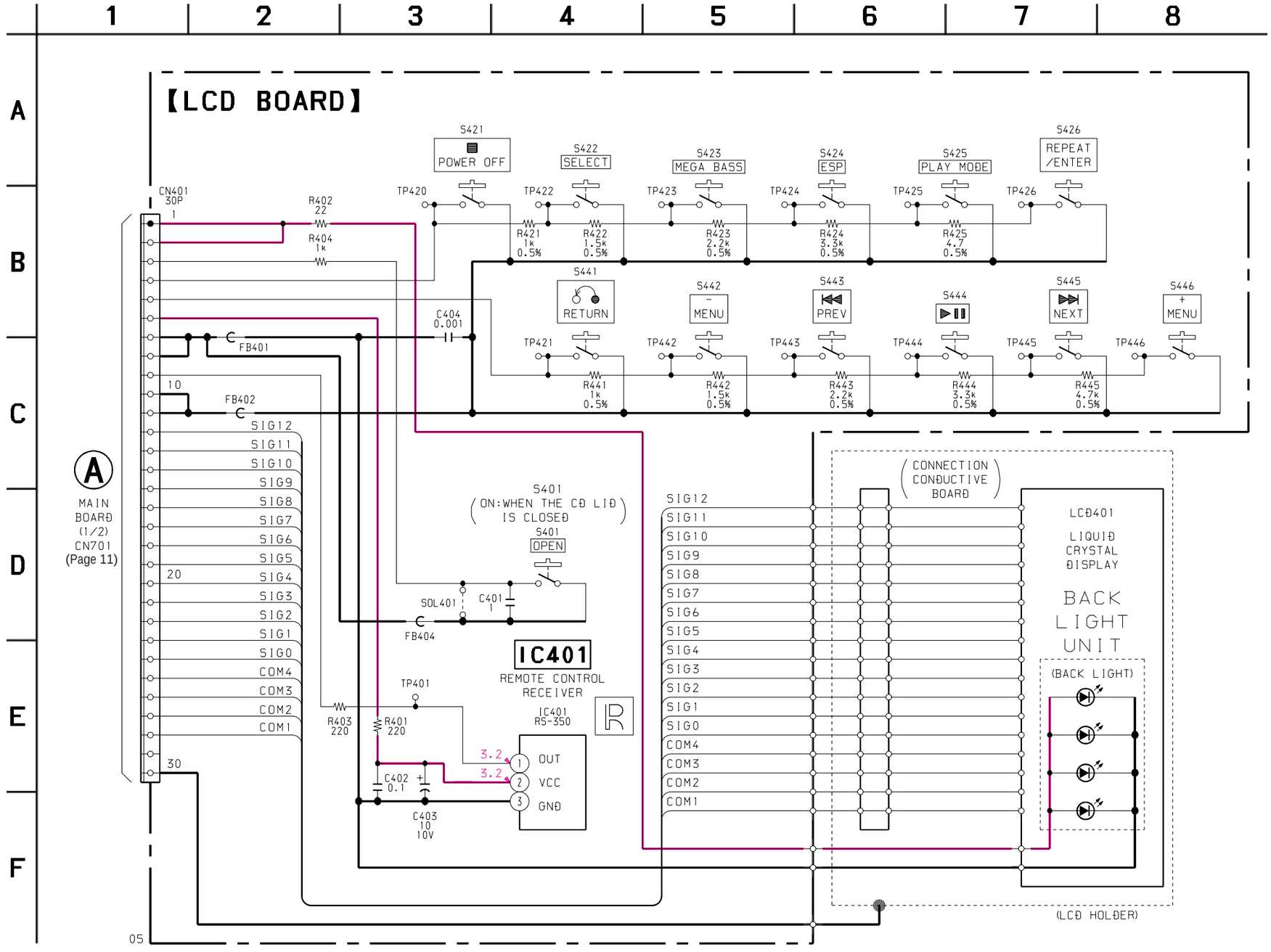
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ▨ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:

Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

2-6. SCHEMATIC DIAGRAM – LCD BOARD –



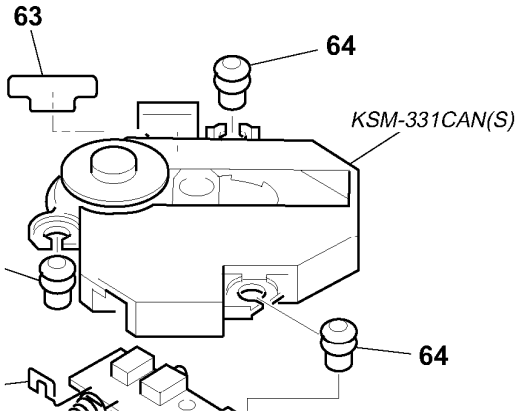
Note on Schematic Diagram:

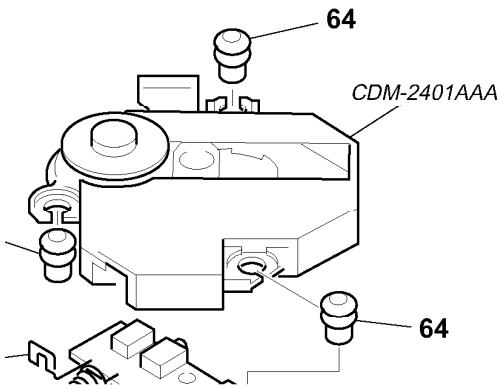
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- % : indicates tolerance.
- ▭ : panel designation.
- ▬ : B+ Line.
- Power voltage is dc 6 V and fed with regulated dc power supply from external power voltage jack.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : VIDEO CD PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.

2-7. EXPLODED VIEWS

NOTE:
- Accessories and packing materials are given in the last of the electrical parts list.

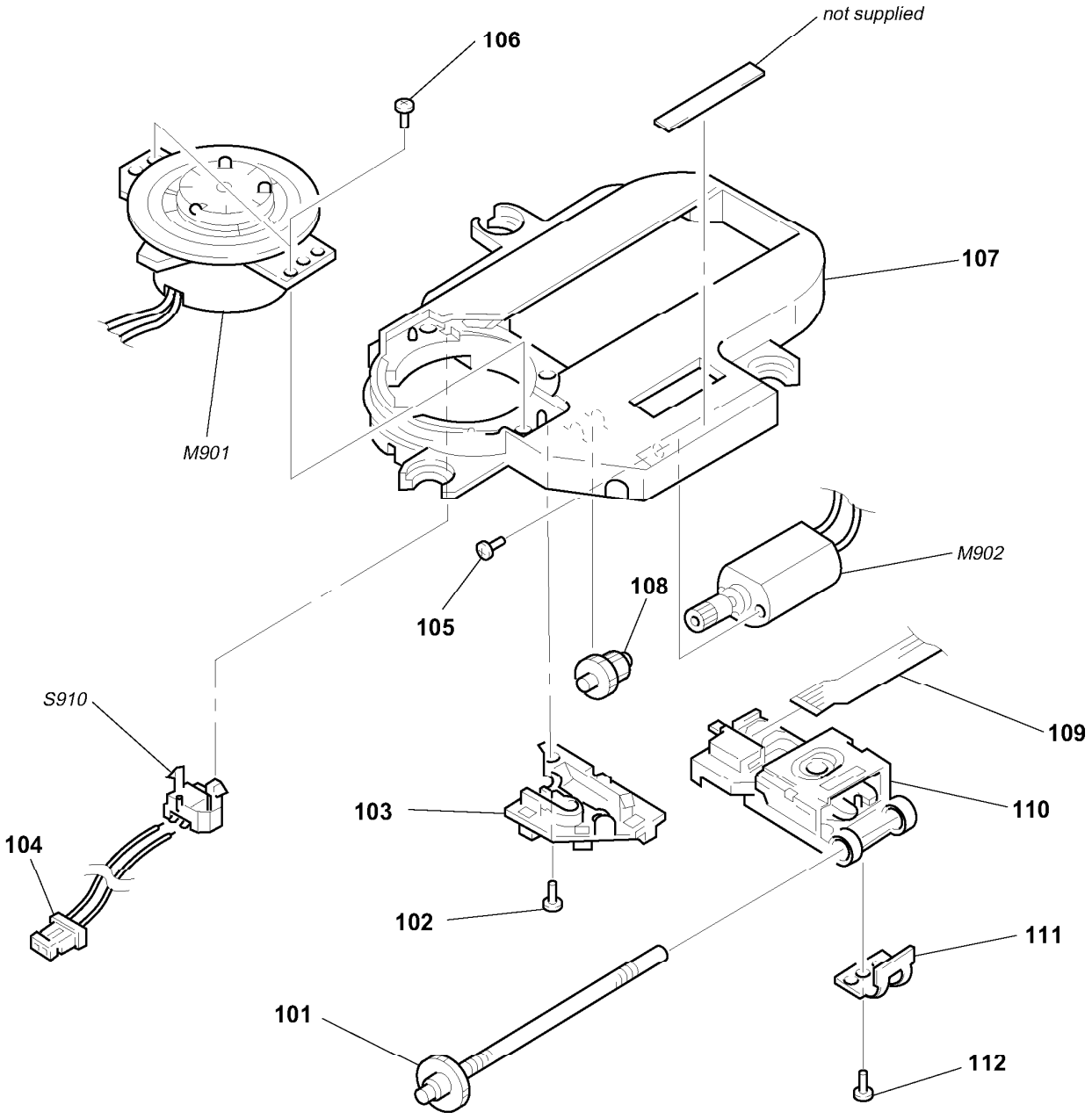
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

<table>
<tr><th>Page</th><th>Former Type</th><th>New Type</th></tr>
<tr><td>62</td><td>
<table>
<tr><th>Ref. No.</th><th>Part No.</th><th>Description</th><th>Remark</th></tr>
<tr><td>4</td><td>A-3320-060-A</td><td>LID BLOCK ASSY, UPPER</td><td></td></tr>
<tr><td>5</td><td>4-996-352-01</td><td>SHAFT</td><td></td></tr>
</table>
</td><td>
<table>
<tr><th>Ref. No.</th><th>Part No.</th><th>Description</th><th>Remark</th></tr>
<tr><td>4</td><td>A-3320-688-A</td><td>LID BLOCK ASSY, UPPER</td><td></td></tr>
<tr><td>5</td><td>4-214-493-01</td><td>SHAFT (FUL CRUM)</td><td></td></tr>
</table>
</td></tr>
<tr><td>63</td><td>


<table>
<tr><th>Ref. No.</th><th>Part No.</th><th>Description</th><th>Remark</th></tr>
<tr><td>51</td><td>X-4949-051-1</td><td>CABINET (LOWER) ASSY</td><td></td></tr>
<tr><td>60</td><td>A-3321-005-A</td><td>LCD BOARD, COMPLETE</td><td></td></tr>
<tr><td>63</td><td>4-956-818-01</td><td>RETAINER, FLEXIBLE</td><td></td></tr>
<tr><td>67</td><td>A-3393-778-A</td><td>MAIN BOARD, COMPLETE</td><td></td></tr>
</table>
</td><td>


<table>
<tr><th>Ref. No.</th><th>Part No.</th><th>Description</th><th>Remark</th></tr>
<tr><td>51</td><td>X-4951-045-1</td><td>CABINET (LOWER) ASSY</td><td></td></tr>
<tr><td>60</td><td>A-3323-073-A</td><td>LCD BOARD, COMPLETE</td><td></td></tr>
<tr><td>67</td><td>A-3323-079-A</td><td>MAIN BOARD, COMPLETE</td><td></td></tr>
</table>
</td></tr>
</table>

(3) MECHANISM DECK SECTION New Type (CDM-2401AAA)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
101	A-3320-684-A	SCREW ASSY, FEED	
102	3-318-203-11	SCREW (B1.7X6), TAPPING	
103	4-972-163-04	SPRING, SLED	
104	1-690-530-81	LEAD (WITH CONNECTOR)	
105	7-627-850-17	SCREW, PRECISION +P 1.4X2.5	
106	3-719-401-11	SCREW (B1.7), TAPPING	
107	4-972-162-01	CHASSIS	
108	4-974-003-01	GEAR (B)	
109	1-660-965-11	SLIDE FLEXIBLE BOARD	
⚠110	X-4950-060-1	OPTICAL PICK-UP (DAX-01A2)	
111	4-972-165-01	RACK	
112	4-973-631-01	SCREW	
M901	A-3303-458-A	MOTOR ASSY, TURNTABLE (SPINDLE)	
M902	A-3303-403-A	MOTOR ASSY, SLED	
S910	1-571-099-21	SWITCH (1 KEY) (LIMIT)	

(New Type)

2-8. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-3323-073-A	LCD BOARD, COMPLETE			
		**********			
	1-475-520-11	LIGHT UNIT, BACK			
	1-694-374-11	CONDUCTIVE BOARD, CONNECTION			
*	4-918-544-11	SPACER (T)			
	4-996-338-01	HOLDER, LCD			
		< CAPACITOR >			
C401	1-115-156-11	CERAMIC CHIP	1uF		10V
C402	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C403	1-104-851-11	ELECT CHIP	10uF	20%	10V
C404	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		< CONNECTOR >			
CN401	1-573-370-21	CONNECTOR, FFC/FPC 30P			
		< FERRITE BEAD >			
FB401	1-500-444-11	FERRITE	0uH		
FB402	1-500-444-11	FERRITE	0uH		
FB404	1-500-444-11	FERRITE	0uH		
		< IC >			
IC401	8-749-014-29	IC RS-350			
		< LIQUID CRYSTAL DISPLAY >			
LCD401	1-801-975-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< RESISTOR >			
R401	1-216-813-11	METAL CHIP	220	5%	1/16W
R402	1-216-158-00	RES, CHIP	22	5%	1/8W
R403	1-216-813-11	METAL CHIP	220	5%	1/16W
R404	1-216-821-11	METAL CHIP	1K	5%	1/16W
R421	1-218-847-11	RES, CHIP	1K	0.50%	1/16W
R422	1-218-696-11	RES, CHIP	1.5K	0.50%	1/16W
R423	1-218-700-11	RES, CHIP	2.2K	0.50%	1/16W
R424	1-218-704-11	RES, CHIP	3.3K	0.50%	1/16W
R425	1-218-708-11	RES, CHIP	4.7K	0.50%	1/16W
R441	1-218-847-11	RES, CHIP	1K	0.50%	1/16W
R442	1-218-851-11	RES, CHIP	1.5K	0.50%	1/16W
R443	1-218-855-11	RES, CHIP	2.2K	0.50%	1/16W
R444	1-218-859-11	RES, CHIP	3.3K	0.50%	1/16W
R445	1-218-863-11	RES, CHIP	4.7K	0.50%	1/16W

Ref. No.	Part No.	Description			Remark
		< SWITCH >			
S401	1-692-366-11	SWITCH, PUSH (1 KEY) (OPEN)			
S421	1-762-366-11	SWITCH, TACTILE (■ POWER OFF)			
S422	1-762-366-11	SWITCH, TACTILE (SELECT)			
S423	1-762-366-11	SWITCH, TACTILE (MEGA BASS)			
S424	1-762-366-11	SWITCH, TACTILE (ESP)			
S425	1-762-366-11	SWITCH, TACTILE (PLAY MODE)			
S426	1-762-366-11	SWITCH, TACTILE (REPEAT/ENTER)			
S441	1-762-366-11	SWITCH, TACTILE (↶ RETURN)			
S442	1-762-366-11	SWITCH, TACTILE (– MENU)			
S443	1-762-366-11	SWITCH, TACTILE (I◀◀ PREV)			
S444	1-762-366-11	SWITCH, TACTILE (▶II)			
S445	1-762-366-11	SWITCH, TACTILE (▶▶I NEXT)			
S446	1-762-366-11	SWITCH, TACTILE (+ MENU)			
**********					
	A-3323-079-A	MAIN BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-107-686-11	TANTAL. CHIP	4.7uF	20%	16V
C102	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C103	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C104	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C105	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C106	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C107	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C201	1-107-686-11	TANTAL. CHIP	4.7uF	20%	16V
C202	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C203	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C204	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C205	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C206	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C207	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C301	1-115-156-11	CERAMIC CHIP	1uF		10V
C321	1-115-156-11	CERAMIC CHIP	1uF		10V
C322	1-126-209-11	ELECT CHIP	100uF	20%	4V
C323	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C324	1-126-246-11	ELECT CHIP	220uF	20%	4V
C325	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C326	1-115-156-11	CERAMIC CHIP	1uF		10V
C332	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C360	1-115-565-11	CERAMIC CHIP	2.2uF	10%	10V
C362	1-126-602-11	ELECT CHIP	3.3uF	20%	50V

MAIN

(New Type)

Ref. No.	Part No.	Description			Remark
C363	1-115-156-11	CERAMIC CHIP	1uF		10V
C364	1-115-156-11	CERAMIC CHIP	1uF		10V
C366	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C367	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C368	1-124-779-00	ELECT CHIP	10uF	20%	16V
C369	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C370	1-126-395-11	ELECT	22uF	20%	16V
C371	1-115-156-11	CERAMIC CHIP	1uF		10V
C372	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C373	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C374	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C500	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C501	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C502	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C503	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C504	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C505	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C507	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C508	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C509	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C510	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C511	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C512	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C513	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C515	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C516	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C517	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C518	1-104-915-11	TANTAL. CHIP	2.2uF	20%	20V
C519	1-115-156-11	CERAMIC CHIP	1uF		10V
C520	1-115-156-11	CERAMIC CHIP	1uF		10V
C523	1-126-246-11	ELECT CHIP	220uF	20%	4V
C524	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C601	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C602	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C603	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C604	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C605	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C606	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C607	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C608	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C609	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C610	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C611	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C614	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C615	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C616	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C617	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C618	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C619	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C680	1-115-156-11	CERAMIC CHIP	1uF		10V
C682	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C684	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C701	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C702	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C703	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C708	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C711	1-135-208-11	TANTAL. CHIP	1uF	20%	10V

Ref. No.	Part No.	Description			Remark
C802	1-126-193-11	ELECT	1uF	20%	50V
C803	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C804	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C810	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C811	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C812	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C820	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C821	1-115-156-11	CERAMIC CHIP	1uF		10V
C822	1-124-779-00	ELECT CHIP	10uF	20%	16V
C823	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C826	1-119-764-11	ELECT	47uF	20%	4V
C827	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C828	1-115-416-11	CERAMIC CHIP	1000PF	5%	25V
C860	1-128-416-11	ELECT CHIP	100uF	20%	16V
C861	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C862	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C863	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C864	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C865	1-104-915-11	TANTAL. CHIP	2.2uF	20%	20V
C867	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C869	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C870	1-115-416-11	CERAMIC CHIP	1000PF	5%	25V
C872	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C873	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C881	1-119-764-11	ELECT	47uF	20%	4V
C882	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C883	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C884	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C890	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C891	1-128-416-11	ELECT CHIP	100uF	20%	16V
C892	1-119-765-11	ELECT	47uF	20%	6.3V
C895	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C901	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C904	1-115-156-11	CERAMIC CHIP	1uF		10V
C905	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C907	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C908	1-119-944-11	ELECT	470uF	20%	4V
C910	1-115-156-11	CERAMIC CHIP	1uF		10V
C911	1-115-156-11	CERAMIC CHIP	1uF		10V
C915	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C917	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C920	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C921	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C922	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C923	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C924	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C925	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C926	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C927	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C928	1-162-911-11	CERAMIC CHIP	6PF	0.5PF	50V
C929	1-162-911-11	CERAMIC CHIP	6PF	0.5PF	50V
C931	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C932	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C933	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C936	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C960	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C961	1-115-156-11	CERAMIC CHIP	1uF		10V
C962	1-104-852-11	TANTAL. CHIP	22uF	20%	10V

(New Type)

Ref. No.	Part No.	Description	Remark
C963	1-119-944-11	ELECT 470uF 20% 4V	
C966	1-162-919-11	CERAMIC CHIP 22PF 5% 50V	
		< CONNECTOR >	
CN501	1-566-530-11	CONNECTOR, FPC (ZIF) 14P	
* CN502	1-695-320-31	PIN, CONNECTOR (1.5mm) (SMD) 2P	
* CN503	1-695-320-21	PIN, CONNECTOR (1.5mm) (SMD) 2P	
* CN504	1-695-320-51	PIN, CONNECTOR (1.5mm) (SMD) 2P	
* CN701	1-573-939-11	CONNECTOR, FFC/FPC (ZIF) 30P	
		< DIODE >	
D101	8-719-039-99	DIODE UMZ8.2T	
D105	8-719-039-99	DIODE UMZ8.2T	
D201	8-719-039-99	DIODE UMZ8.2T	
D205	8-719-039-99	DIODE UMZ8.2T	
D302	8-719-039-99	DIODE UMZ8.2T	
D340	8-719-404-35	DIODE MA141WK	
D501	8-719-031-17	DIODE 1SS322-TE85L	
D502	8-719-039-99	DIODE UMZ8.2T	
D504	8-719-404-49	DIODE MA111	
D601	8-719-024-81	DIODE 1SS300-TE85L	
D602	8-719-049-09	DIODE 1SS367-T3SONY	
D805	8-719-048-98	DIODE RB160L-40TE25	
D808	8-719-048-98	DIODE RB160L-40TE25	
D820	8-719-048-98	DIODE RB160L-40TE25	
D880	8-719-048-98	DIODE RB160L-40TE25	
D890	8-719-048-98	DIODE RB160L-40TE25	
D891	8-719-049-09	DIODE 1SS367-T3SONY	
		< FERRITE BEAD >	
FB101	1-500-444-11	FERRITE 0uH	
FB102	1-500-444-11	FERRITE 0uH	
FB201	1-500-444-11	FERRITE 0uH	
FB202	1-500-444-11	FERRITE 0uH	
FB301	1-414-656-11	FERRITE 0uH	
FB306	1-500-444-11	FERRITE 0uH	
FB680	1-414-656-11	FERRITE 0uH	
FB681	1-414-656-11	FERRITE 0uH	
FB701	1-500-444-11	FERRITE 0uH	
FB702	1-500-444-11	FERRITE 0uH	
FB703	1-414-656-11	FERRITE 0uH	
FB801	1-414-633-22	INDUCTOR CHIP 0uH	
FB903	1-414-656-11	FERRITE 0uH	
FB960	1-414-656-11	FERRITE 0uH	
		< IC >	
IC301	8-759-186-51	IC TC74VHC157F	
IC320	8-759-459-18	IC TC9434AFNEL	
IC360	8-759-386-50	IC BA3574BFS-T1	
IC501	8-752-069-29	IC CXA1791N	
IC502	8-759-442-80	IC MPC17A38ZVMEL	
IC601	8-752-369-78	IC CXD2545Q	
IC602	8-759-179-64	IC BA3890F	
IC680	8-759-571-16	IC RL5C358A	
IC681	8-759-498-44	IC MSM51V4400D-70TSK	
IC701	8-759-571-15	IC MSM65354-414GS-BK4	
IC702	8-759-442-79	IC RH5VL27AA-T1	

Ref. No.	Part No.	Description	Remark
IC801	8-759-085-76	IC S-81332HG-KC-T1	
IC810	8-759-530-69	IC XC61AC4502PR	
IC820	8-759-521-35	IC TL5001CD	
IC861	8-759-360-66	IC TL1453CPW-E20	
IC862	8-759-441-31	IC MC14053BDTR2	
IC901	8-759-493-57	IC ES3210S	
IC902	8-759-573-32	IC MX23C1010TI-90-SG2	
IC903	8-759-498-43	IC MSM54V16258ASL-45TSK	
IC904	8-759-396-26	IC SN74LV08PW-E20	
IC920	8-759-493-55	IC TC90A07U	
IC921	8-759-085-76	IC S-81332HG-KC-T1	
IC960	8-759-433-44	IC MM1031XML	
		< JACK >	
J301	1-580-709-21	JACK (🎧 PHONES)	
J801	1-778-153-11	JACK, DC (POLARITY UNIFIED TYPE)	(DC IN 6V)
J901	1-778-040-11	JACK, SMALL TYPE (AUDIO/VIDEO OUT)	
		< COIL >	
L320	1-412-002-31	INDUCTOR CHIP 4.7uH	
L321	1-412-002-31	INDUCTOR CHIP 4.7uH	
L322	1-412-002-31	INDUCTOR CHIP 4.7uH	
L323	1-412-979-21	INDUCTOR 1uH	
L501	1-414-398-11	INDUCTOR 10uH	
L502	1-414-398-11	INDUCTOR 10uH	
L503	1-414-854-11	INDUCTOR 1mH	
L504	1-414-404-11	INDUCTOR 100uH	
L505	1-414-404-11	INDUCTOR 100uH	
L506	1-414-402-11	INDUCTOR 47uH	
L507	1-414-402-11	INDUCTOR 47uH	
L601	1-410-997-22	INDUCTOR CHIP 2.2uH	
L602	1-410-997-22	INDUCTOR CHIP 2.2uH	
L801	1-414-392-21	INDUCTOR 1uH	
L820	1-414-526-11	INDUCTOR CHIP 47uH	
L880	1-414-526-11	INDUCTOR CHIP 47uH	
L901	1-414-392-21	INDUCTOR 1uH	
L902	1-410-997-22	INDUCTOR CHIP 2.2uH	
L921	1-412-979-21	INDUCTOR 1uH	
L923	1-414-398-11	INDUCTOR 10uH	
L924	1-410-997-22	INDUCTOR CHIP 2.2uH	
L960	1-410-993-42	INDUCTOR CHIP 1uH	
L961	1-412-002-31	INDUCTOR CHIP 4.7uH	
		< TRANSISTOR >	
Q101	8-729-231-74	TRANSISTOR 2SC4116-GL	
Q201	8-729-231-74	TRANSISTOR 2SC4116-GL	
Q340	8-729-907-39	TRANSISTOR IMD2	
Q341	8-729-231-74	TRANSISTOR 2SC4116-GL	
Q342	8-729-029-14	TRANSISTOR DTC144EUA-T106	
Q501	8-729-904-86	TRANSISTOR 2SB1197K-Q	
Q503	8-729-930-32	TRANSISTOR UMH11	
Q504	8-729-930-32	TRANSISTOR UMH11	
Q505	8-729-029-14	TRANSISTOR DTC144EUA-T106	
Q506	8-729-231-74	TRANSISTOR 2SC4116-GL	
Q507	8-729-029-14	TRANSISTOR DTC144EUA-T106	
Q508	8-729-029-14	TRANSISTOR DTC144EUA-T106	
Q509	8-729-028-91	TRANSISTOR DTA144EUA-T106	

MAIN

(New Type)

Ref. No.	Part No.	Description			Remark
Q601	8-729-029-14	TRANSISTOR	DTC144EUA-T106		
Q701	8-729-928-70	TRANSISTOR	DTA143TE-TL		
Q702	8-729-027-60	TRANSISTOR	DTC144TKA-T146		
Q703	8-729-028-91	TRANSISTOR	DTA144EUA-T106		
Q801	8-729-904-86	TRANSISTOR	2SB1197K-Q		
Q802	8-729-903-10	TRANSISTOR	FMW1		
Q803	8-729-930-32	TRANSISTOR	UMH11		
Q810	8-729-930-32	TRANSISTOR	UMH11		
Q820	8-729-028-91	TRANSISTOR	DTA144EUA-T106		
Q822	8-729-043-79	TRANSISTOR	2SJ517TL		
Q861	8-729-921-05	TRANSISTOR	FMC3-T148		
Q881	8-729-043-79	TRANSISTOR	2SJ517TL		
Q882	8-729-043-79	TRANSISTOR	2SJ517TL		
Q891	8-729-024-44	TRANSISTOR	2SK2315TYTR		
		< RESISTOR >			
R101	1-216-821-11	METAL CHIP	1K	5%	1/16W
R102	1-216-845-11	METAL CHIP	100K	5%	1/16W
R103	1-216-833-11	METAL CHIP	10K	5%	1/16W
R105	1-216-821-11	METAL CHIP	1K	5%	1/16W
R106	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R107	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R108	1-216-813-11	METAL CHIP	220	5%	1/16W
R201	1-216-821-11	METAL CHIP	1K	5%	1/16W
R202	1-216-845-11	METAL CHIP	100K	5%	1/16W
R203	1-216-833-11	METAL CHIP	10K	5%	1/16W
R205	1-216-821-11	METAL CHIP	1K	5%	1/16W
R206	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R207	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R208	1-216-813-11	METAL CHIP	220	5%	1/16W
R311	1-216-845-11	METAL CHIP	100K	5%	1/16W
R314	1-216-857-11	METAL CHIP	1M	5%	1/16W
R315	1-216-837-11	METAL CHIP	22K	5%	1/16W
R316	1-216-821-11	METAL CHIP	1K	5%	1/16W
R320	1-216-803-11	METAL CHIP	33	5%	1/16W
R323	1-216-857-11	METAL CHIP	1M	5%	1/16W
R327	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R502	1-216-845-11	METAL CHIP	100K	5%	1/16W
R503	1-216-845-11	METAL CHIP	100K	5%	1/16W
R504	1-216-845-11	METAL CHIP	100K	5%	1/16W
R505	1-216-845-11	METAL CHIP	100K	5%	1/16W
R506	1-216-847-11	METAL CHIP	150K	5%	1/16W
R507	1-216-847-11	METAL CHIP	150K	5%	1/16W
R508	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R509	1-216-845-11	METAL CHIP	100K	5%	1/16W
R510	1-216-821-11	METAL CHIP	1K	5%	1/16W
R511	1-216-837-11	METAL CHIP	22K	5%	1/16W
R513	1-216-864-11	METAL CHIP	0	5%	1/16W
R514	1-216-824-11	METAL CHIP	1.8K	5%	1/16W
R515	1-216-824-11	METAL CHIP	1.8K	5%	1/16W
R516	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R517	1-216-835-11	METAL CHIP	15K	5%	1/16W
R519	1-216-833-11	METAL CHIP	10K	5%	1/16W
R520	1-216-841-11	METAL CHIP	47K	5%	1/16W
R521	1-216-839-11	METAL CHIP	33K	5%	1/16W
R522	1-216-843-11	METAL CHIP	68K	5%	1/16W
R523	1-218-898-11	RES, CHIP	130K	0.50%	1/16W

Ref. No.	Part No.	Description			Remark
R524	1-216-850-11	METAL CHIP	270K	5%	1/16W
R525	1-216-836-11	METAL CHIP	18K	5%	1/16W
R526	1-216-864-11	METAL CHIP	0	5%	1/16W
R527	1-216-845-11	METAL CHIP	100K	5%	1/16W
R528	1-216-857-11	METAL CHIP	1M	5%	1/16W
R529	1-216-837-11	METAL CHIP	22K	5%	1/16W
R530	1-216-821-11	METAL CHIP	1K	5%	1/16W
R531	1-216-845-11	METAL CHIP	100K	5%	1/16W
R532	1-216-861-11	METAL CHIP	2.2M	5%	1/16W
R533	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R534	1-216-809-11	METAL CHIP	100	5%	1/16W
R541	1-216-841-11	METAL CHIP	47K	5%	1/16W
R542	1-216-821-11	METAL CHIP	1K	5%	1/16W
R543	1-216-821-11	METAL CHIP	1K	5%	1/16W
R559	1-216-864-11	METAL CHIP	0	5%	1/16W
R601	1-216-845-11	METAL CHIP	100K	5%	1/16W
R602	1-216-839-11	METAL CHIP	33K	5%	1/16W
R603	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R604	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R605	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R606	1-216-857-11	METAL CHIP	1M	5%	1/16W
R607	1-216-833-11	METAL CHIP	10K	5%	1/16W
R611	1-216-841-11	METAL CHIP	47K	5%	1/16W
R612	1-218-895-11	RES, CHIP	100K	0.50%	1/16W
R614	1-218-871-11	RES, CHIP	10K	0.50%	1/16W
R619	1-216-833-11	METAL CHIP	10K	5%	1/16W
R620	1-216-833-11	METAL CHIP	10K	5%	1/16W
R681	1-216-833-11	METAL CHIP	10K	5%	1/16W
R700	1-216-853-11	METAL CHIP	470K	5%	1/16W
R701	1-216-845-11	METAL CHIP	100K	5%	1/16W
R702	1-216-845-11	METAL CHIP	100K	5%	1/16W
R704	1-216-853-11	METAL CHIP	470K	5%	1/16W
R705	1-216-833-11	METAL CHIP	10K	5%	1/16W
R706	1-216-833-11	METAL CHIP	10K	5%	1/16W
R707	1-216-845-11	METAL CHIP	100K	5%	1/16W
R708	1-216-853-11	METAL CHIP	470K	5%	1/16W
R709	1-216-845-11	METAL CHIP	100K	5%	1/16W
R710	1-216-853-11	METAL CHIP	470K	5%	1/16W
R711	1-216-853-11	METAL CHIP	470K	5%	1/16W
R712	1-216-845-11	METAL CHIP	100K	5%	1/16W
R713	1-216-853-11	METAL CHIP	470K	5%	1/16W
R714	1-216-813-11	METAL CHIP	220	5%	1/16W
R715	1-216-845-11	METAL CHIP	100K	5%	1/16W
R716	1-216-851-11	METAL CHIP	330K	5%	1/16W
R801	1-218-898-11	RES, CHIP	130K	0.50%	1/16W
R802	1-218-894-11	RES, CHIP	91K	0.50%	1/16W
R803	1-218-907-11	RES, CHIP	330K	0.50%	1/16W
R804	1-216-295-00	SHORT	0		
R805	1-218-752-11	METAL CHIP	330K	0.50%	1/16W
R806	1-218-748-11	METAL CHIP	220K	0.50%	1/16W
R810	1-216-833-11	METAL CHIP	10K	5%	1/16W
R811	1-216-847-11	METAL CHIP	150K	5%	1/16W
R812	1-216-821-11	METAL CHIP	1K	5%	1/16W
R813	1-216-817-11	METAL CHIP	470	5%	1/16W
R815	1-216-809-11	METAL CHIP	100	5%	1/16W
R820	1-218-886-11	RES, CHIP	43K	0.50%	1/16W
R821	1-218-888-11	RES, CHIP	51K	0.50%	1/16W
R822	1-216-833-11	METAL CHIP	10K	5%	1/16W

(New Type)

Ref. No.	Part No.	Description			Remark
R824	1-216-801-11	METAL CHIP	22	5%	1/16W
R826	1-216-857-11	METAL CHIP	1M	5%	1/16W
R827	1-218-877-11	RES, CHIP	18K	0.50%	1/16W
R828	1-218-879-11	RES, CHIP	22K	0.50%	1/16W
R860	1-218-883-11	RES, CHIP	33K	0.50%	1/16W
R861	1-218-887-11	RES, CHIP	47K	0.50%	1/16W
R862	1-218-885-11	RES, CHIP	39K	0.50%	1/16W
R863	1-218-885-11	RES, CHIP	39K	0.50%	1/16W
R864	1-218-883-11	RES, CHIP	33K	0.50%	1/16W
R865	1-218-887-11	RES, CHIP	47K	0.50%	1/16W
R866	1-218-885-11	RES, CHIP	39K	0.50%	1/16W
R867	1-218-885-11	RES, CHIP	39K	0.50%	1/16W
R869	1-216-833-11	METAL CHIP	10K	5%	1/16W
R870	1-218-878-11	RES, CHIP	20K	0.50%	1/16W
R871	1-216-833-11	METAL CHIP	10K	5%	1/16W
R872	1-216-833-11	METAL CHIP	10K	5%	1/16W
R873	1-218-871-11	RES, CHIP	10K	0.50%	1/16W
R874	1-218-847-11	RES, CHIP	1K	0.50%	1/16W
R880	1-216-801-11	METAL CHIP	22	5%	1/16W
R881	1-216-857-11	METAL CHIP	1M	5%	1/16W
R882	1-218-907-11	RES, CHIP	330K	0.50%	1/16W
R883	1-218-882-11	RES, CHIP	30K	0.50%	1/16W
R884	1-218-877-11	RES, CHIP	18K	0.50%	1/16W
R885	1-216-857-11	METAL CHIP	1M	5%	1/16W
R886	1-216-809-11	METAL CHIP	100	5%	1/16W
R888	1-216-295-00	SHORT	0		
R892	1-216-857-11	METAL CHIP	1M	5%	1/16W
R896	1-218-883-11	RES, CHIP	33K	0.50%	1/16W
R897	1-218-869-11	RES, CHIP	8.2K	0.50%	1/16W
R901	1-216-833-11	METAL CHIP	10K	5%	1/16W
R904	1-216-845-11	METAL CHIP	100K	5%	1/16W
R921	1-218-887-11	RES, CHIP	47K	0.50%	1/16W
R922	1-218-883-11	RES, CHIP	33K	0.50%	1/16W
R924	1-216-857-11	METAL CHIP	1M	5%	1/16W
R926	1-216-845-11	METAL CHIP	100K	5%	1/16W
R927	1-216-845-11	METAL CHIP	100K	5%	1/16W
R960	1-216-809-11	METAL CHIP	100	5%	1/16W
R961	1-216-022-00	METAL CHIP	75	5%	1/10W
R962	1-216-833-11	METAL CHIP	10K	5%	1/16W
		< VARIABLE RESISTOR >			
RV301	1-225-570-11	RES, VAR, CARBON 10K/10K (VOLUME)			
		< SWITCH >			
S701	1-572-922-11	SWITCH, SLIDE (HOLD)			
S702	1-572-922-11	SWITCH, SLIDE (RESUME)			
S703	1-692-605-31	SWITCH, SLIDE (PAL, AUTO, NTSC (VIDEO SYSTEM))			
		< TRANSFORMER >			
T891	1-431-652-21	TRANSFORMER, DC-DC CONVERTER			
		< VIBRATOR >			
X320	1-767-366-21	VIBRATOR, CERAMIC (16.934MHz)			
X701	1-579-063-41	VIBRATOR, CERAMIC (4.19MHz)			
X920	1-767-519-11	VIBRATOR, CRYSTAL (27MHz)			

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
61	1-776-149-11	FLEXIBLE FLAT CABLE	
104	1-690-530-81	LEAD (WITH CONNECTOR)	
109	1-660-965-11	SLIDE FLEXIBLE BOARD	
⚠110	X-4950-060-1	OPTICAL PICK-UP (DAX-01A2)	
M901	A-3303-458-A	MOTOR ASSY, TURNTABLE (SPINDLE)	
M902	A-3303-403-A	MOTOR ASSY, SLED	
S910	1-571-099-21	SWITCH (1 KEY) (LIMIT)	
		ACCESSORIES & PACKING MATERIALS	
		**********	
⚠	1-467-570-31	ADAPTOR, AC (AC-E60HG) (E)	
⚠	1-475-712-11	ADAPTOR, AC (AC-E67A) (Chinese)	
	1-783-028-11	CORD (WITH PLUG) (AV MONITOR CORD)	
	3-861-942-11	MANUAL, INSTRUCTION (ENGLISH,CHINESE)	
	3-861-942-21	MANUAL, INSTRUCTION (JAPANESE, KOREAN) (Tourist)	
	4-991-047-01	LID, BATTERY CASE (for RM-DV10)	
	8-917-658-90	REMOTE COMMADER RM-DV10	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

9-923-278-83

Sony Corporation
Personal A&V Products Company

98L0518-1
Printed in Japan © 1998. 12
Published by Quality Engineering Dept.
(Shibaura)

D-V8000

SONY

E Model
Chinese Model
Tourist Model

SERVICE MANUAL

SUPPLEMENT-1

File this supplement with the service manual.

Subject: Board Modification

(ENG-98002)

BOARD MODIFICATION

Two types of the printed circuit board and the SUB board disappeared exist because the board type has been changed in the production. This manual contains the printed wiring boards, the schematic diagram, and the electrical parts list of only the new board type and the block diagram of compare only different portion. For other information, refer to the D-V8000 service manual (9-923-278-11) previously issued.

TABLE OF CONTENTS

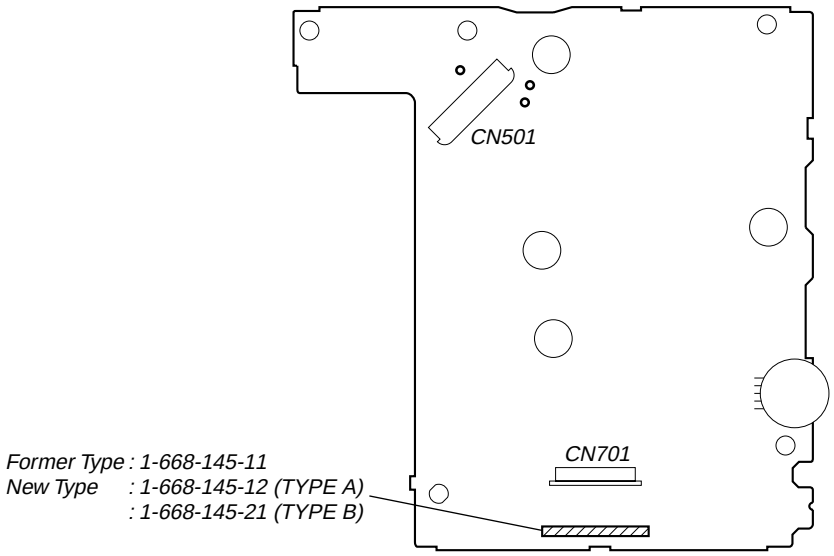
1. DIAGRAMS

1-1. Printed Wiring Board – MAIN Board (TYPE A) – 3
1-2. Printed Wiring Board – MAIN Board (TYPE B) – 6
1-3. Schematic Diagram – MAIN Board (1/2) – 9
1-4. Schematic Diagram – MAIN Board (2/2) – 14
1-5. Schematic Diagram – LCD Board – 17
1-6. Printed Wiring Board – LCD Board – 19
1-7. Block Diagram 21

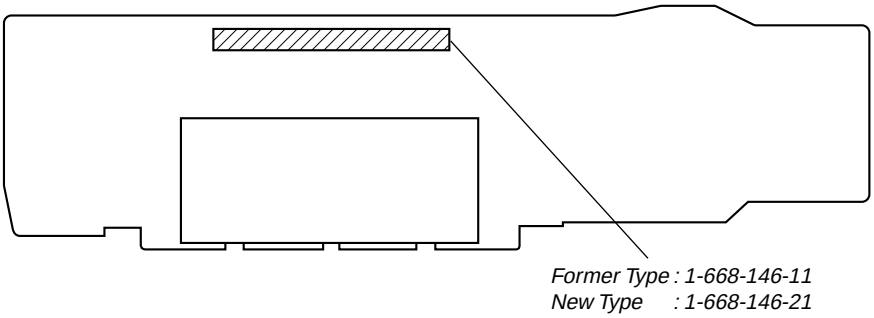
2. ELECTRICAL PARTS LIST 22

- **New/Former Discrimination**

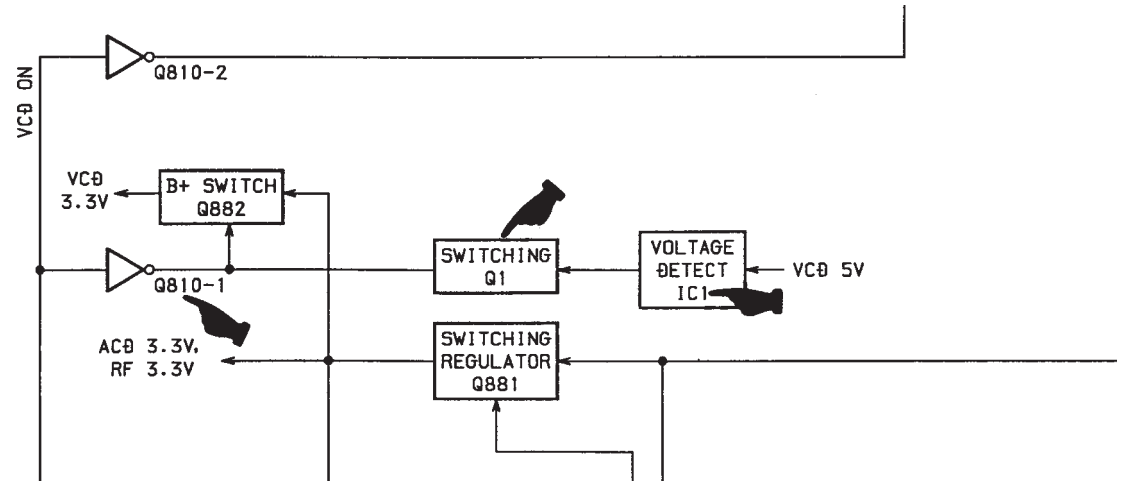
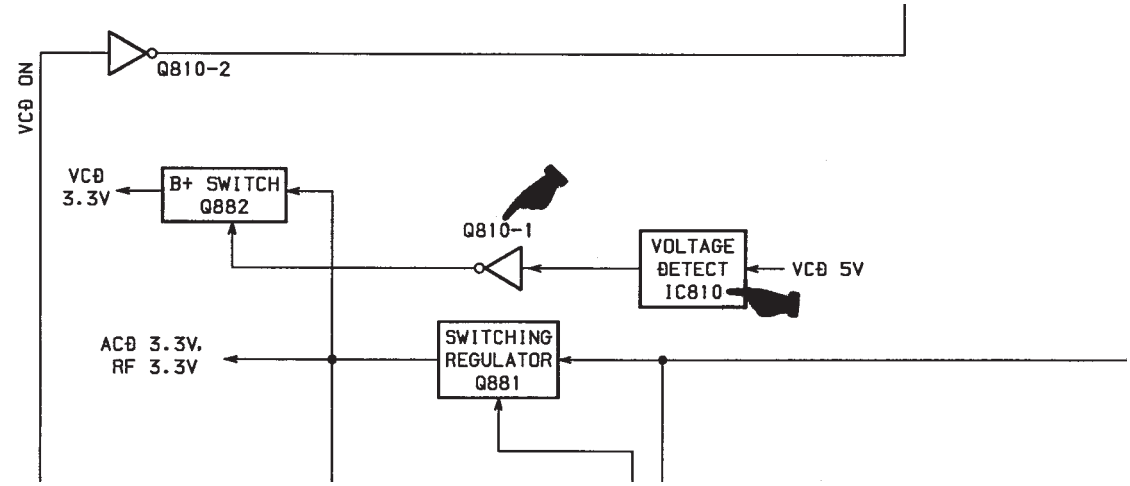
[MAIN BOARD] — Side A —



[LCD BOARD] — Side A —



1-7. BLOCK DIAGRAM

Page	Ref. No.	Former Type
36	IC1 Q1 Q810	
		New Type
		

LCD **MAIN**

SECTION 2
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-3321-307-A	LCD BOARD, COMPLETE			
		**********			
	1-776-149-11	FLEXIBLE CABLE, FLAT (FCR-1)			
	4-996-337-02	BASE, BUTTON			
	4-996-338-02	HOLDER, LCD			
		< CAPACITOR >			
C401	1-115-156-11	CERAMIC CHIP	1uF		10V
C402	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C403	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C404	1-115-416-11	CERAMIC CHIP	1000PF	5%	25V
		< CONNECTOR >			
CN401	1-573-370-21	CONNECTOR, FFC/FPC 30P			
		< FERRITE BEAD >			
FB401	1-414-656-11	FERRITE	0uH		
FB402	1-414-656-11	FERRITE	0uH		
		< IC >			
IC401	8-749-014-29	IC RS-350			
		< RESISTOR >			
R401	1-216-813-11	METAL CHIP	220	5%	1/16W
R402	1-216-158-00	RES, CHIP	22 (3216)		
R403	1-216-813-11	METAL CHIP	220	5%	1/16W
R421	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R422	1-218-696-11	METAL CHIP	1.5K	0.5%	1/16W
R423	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R424	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W
R425	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R441	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R442	1-218-696-11	METAL CHIP	1.5K	0.5%	1/16W
R443	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R444	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W
R445	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
		< SWITCH >			
S401	1-771-273-11	SWITCH, PUSH (OPEN)			
S421	1-762-366-11	SWITCH, TACTILE (□ POWER OFF)			
S422	1-762-366-11	SWITCH, TACTILE (○ SELECT)			
S423	1-762-366-11	SWITCH, TACTILE (MEGA BASS)			
S424	1-762-366-11	SWITCH, TACTILE (ESP)			
S425	1-762-366-11	SWITCH, TACTILE (PLAY MODE)			
S426	1-762-366-11	SWITCH, TACTILE (REPEAT/ENTER)			
S441	1-762-366-11	SWITCH, TACTILE (↶ RETURN)			
S442	1-762-366-11	SWITCH, TACTILE (– MENU)			
S443	1-762-366-11	SWITCH, TACTILE (⏮ PREV)			
S444	1-762-366-11	SWITCH, TACTILE (▷⏸)			
S445	1-762-366-11	SWITCH, TACTILE (▷▷⏭ NEXT)			
S446	1-762-366-11	SWITCH, TACTILE (+ MENU)			
**********					
	A-3293-778-A	MAIN BOARD, COMPLETE (TYPE A)			
	A-3293-924-A	MAIN BOARD, COMPLETE (TYPE B)			
		**********			
		< CAPACITOR >			
C101	1-107-686-11	TANTAL. CHIP	4.7uF	20%	16V
C102	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C103	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C104	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C105	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (TYPE A)
C105	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (TYPE B)
C106	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C107	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C201	1-107-686-11	TANTAL. CHIP	4.7uF	20%	16V
C202	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C203	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C204	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C205	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (TYPE A)
C205	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (TYPE B)
C206	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C207	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C301	1-164-156-11	CERAMIC CHIP	0.1uF		25V (TYPE A)
C301	1-115-156-11	CERAMIC CHIP	1uF		10V (TYPE B)
C321	1-164-156-11	CERAMIC CHIP	0.1uF		25V (TYPE A)

Ref. No.	Part No.	Description			Remark
C321	1-115-156-11	CERAMIC CHIP	1uF		10V (TYPE B)
C323	1-164-156-11	CERAMIC CHIP	0.1uF		25V (TYPE A)
C323	1-115-156-11	CERAMIC CHIP	1uF		10V (TYPE B)
C324	1-126-246-11	ELECT CHIP	220uF	20%	4V
C325	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C326	1-164-156-11	CERAMIC CHIP	0.1uF		25V (TYPE A)
C326	1-115-156-11	CERAMIC CHIP	1uF		10V (TYPE B)
C327	1-162-919-11	CERAMIC CHIP	22PF	5%	50V (TYPE B)
C328	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C329	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C330	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C332	1-164-156-11	CERAMIC CHIP	0.1uF		25V (TYPE A)
C332	1-109-982-11	CERAMIC CHIP	1uF	10%	10V (TYPE B)
C360	1-104-915-11	TANTAL. CHIP	2.2uF	20%	20V
C361	1-115-156-11	CERAMIC CHIP	1uF		10V
C362	1-126-602-11	ELECT CHIP	3.3uF	20%	50V
C363	1-115-156-11	CERAMIC CHIP	1uF		10V
C364	1-164-346-11	CERAMIC CHIP	1uF		16V (TYPE A)
C364	1-115-156-11	CERAMIC CHIP	1uF		10V (TYPE B)
C366	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C367	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C368	1-124-779-00	ELECT CHIP	10uF	20%	16V
C369	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C370	1-126-395-11	ELECT	22uF	20%	16V
C371	1-115-156-11	CERAMIC CHIP	1uF		10V
C372	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C373	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C374	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C500	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C501	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C502	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C503	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C504	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C505	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C507	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C508	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C510	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C511	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C512	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C513	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C515	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C516	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C517	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C519	1-115-156-11	CERAMIC CHIP	1uF		10V (TYPE B)
C520	1-115-156-11	CERAMIC CHIP	1uF		10V (TYPE B)
C523	1-126-246-11	ELECT CHIP	220uF	20%	4V
C524	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C601	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C602	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C603	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C604	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C605	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C606	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C607	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C608	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C609	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C610	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C611	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C613	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C614	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C615	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C616	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C617	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C618	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C619	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C680	1-164-156-11	CERAMIC CHIP	0.1uF		25V (TYPE A)
C680	1-115-156-11	CERAMIC CHIP	1uF		10V (TYPE B)
C682	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C684	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C701	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C702	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C703	1-115-416-11	CERAMIC CHIP	1000PF	5%	25V
C707	1-115-156-11	CERAMIC CHIP	1uF		10V
C708	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C711	1-135-208-11	TANTAL. CHIP	1uF	20%	10V
C801	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C802	1-126-193-11	ELECT	1uF	20%	50V
C803	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C804	1-109-982-11	CERAMIC CHIP	1uF	10%	50V (TYPE B)
C810	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C811	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C812	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C820	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C821	1-115-156-11	CERAMIC CHIP	1uF		10V
C822	1-124-779-00	ELECT CHIP	10uF	20%	16V
C823	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C826	1-119-764-21	ELECT	47uF		4V
C827	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C828	1-115-416-11	CERAMIC CHIP	1000PF	5%	25V
C860	1-128-416-11	ELECT CHIP	100uF	20%	16V
C861	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C862	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C863	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C864	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C865	1-104-915-11	TANTAL. CHIP	2.2uF	20%	20V
C867	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	25V
C869	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C870	1-115-416-11	CERAMIC CHIP	1000PF	5%	25V
C872	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C873	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C881	1-119-764-21	ELECT	47uF		4V
C882	1-164-156-11	CERAMIC CHIP	0.1uF		25V

MAIN

Ref. No.	Part No.	Description			Remark
C883	1-162-966-11	CERAMIC CHIP	0.0022uF	5%	25V
C884	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C890	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C891	1-128-416-11	ELECT CHIP	100uF	20%	16V
C892	1-119-765-21	ELECT	47uF		6.3V
C895	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C901	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C902	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C903	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C904	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C905	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C906	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (TYPE A)
C907	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C908	1-119-944-11	ELECT	470uF		4V
C915	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C916	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C917	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C920	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C921	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C922	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C923	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C924	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C925	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C926	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C927	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C928	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V (TYPE A)
C928	1-162-911-11	CERAMIC CHIP	6PF	0.5PF	50V (TYPE B)
C929	1-162-914-11	CERAMIC CHIP	9PF	5%	50V (TYPE A)
C929	1-162-911-11	CERAMIC CHIP	6PF	0.5PF	50V (TYPE B)
C930	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (TYPE A)
C931	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C932	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C933	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C936	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C937	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C960	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C961	1-115-156-11	CERAMIC CHIP	1uF		10V
C962	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C963	1-119-944-21	ELECT	470uF		4V
C966	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
		< CONNECTOR >			
CN501	1-566-534-11	CONNECTOR, FPC (ZIF) 18P			
* CN502	1-695-320-31	PIN, CONNECTOR (1.5MM) (SMD) 2P			
* CN503	1-695-320-21	PIN, CONNECTOR (1.5MM) (SMD) 2P			
* CN504	1-695-320-51	PIN, CONNECTOR (1.5MM) (SMD) 2P			
* CN701	1-573-939-11	CONNECTOR, FFC/FPC (ZIF) 30P			
		< DIODE >			
D101	8-719-039-99	DIODE UMZ8.2T			
D105	8-719-039-99	DIODE UMZ8.2T			
D201	8-719-039-99	DIODE UMZ8.2T			
D205	8-719-039-99	DIODE UMZ8.2T			
D206	8-719-039-99	DIODE UMZ8.2T			

Ref. No.	Part No.	Description	Remark
D302	8-719-039-99	DIODE UMZ8.2T	
D340	8-719-988-78	DIODE SB007W03Q	
D501	8-719-988-78	DIODE SB007W03Q	
D502	8-719-039-99	DIODE UMZ8.2T	
D504	8-719-404-49	DIODE MA111	
D601	8-719-024-81	DIODE 1SS300-TE85L	
D602	8-719-049-09	DIODE 1SS367-T3SONY	
D805	8-719-048-98	DIODE RB160L-40TE25	
D808	8-719-048-98	DIODE RB160L-40TE25	
D820	8-719-048-98	DIODE RB160L-40TE25	
D880	8-719-048-98	DIODE RB160L-40TE25	
D890	8-719-048-98	DIODE RB160L-40TE25	
D891	8-719-049-09	DIODE 1SS367-T3SONY	
D961	8-719-039-99	DIODE UMZ8.2T	
		< FERRITE BEAD >	
FB101	1-500-444-11	INDUCTOR 0uH	
FB102	1-500-444-11	INDUCTOR 0uH	
FB201	1-500-444-11	INDUCTOR 0uH	
FB202	1-500-444-11	INDUCTOR 0uH	
FB306	1-500-444-11	INDUCTOR 0uH	
FB605	1-414-656-11	INDUCTOR 0uH	
FB680	1-414-656-11	INDUCTOR 0uH	
FB681	1-414-656-11	INDUCTOR 0uH	
FB701	1-500-444-11	INDUCTOR 0uH	
FB702	1-500-444-11	INDUCTOR 0uH	
FB703	1-414-656-11	INDUCTOR 0uH	
FB801	1-414-633-21	INDUCTOR CHIP 0uH	
FB960	1-414-656-11	INDUCTOR 0uH	
FB962	1-414-656-11	INDUCTOR 0uH (TYPE A)	
		< IC >	
IC301	8-759-186-51	IC TC74VHC157F	
IC320	8-759-459-18	IC TC9434AFNEL	
IC360	8-759-386-50	IC BA3574BFS-T1	
IC501	8-752-069-29	IC CXA1791N	
IC502	8-759-442-80	IC MPC17A38ZVMEL	
IC601	8-752-369-78	IC CXD2545Q	
IC602	8-759-179-64	IC BA3890F	
IC603	8-759-396-26	IC SN74LV08PW-E20	
IC680	8-759-493-51	IC RS5C357	
IC681	8-759-498-44	IC MSM51V4400D-70TSK	
IC701	8-759-528-77	IC MSM65354-407GS-BK4	
IC702	8-759-442-79	IC RH5VL27AA-T1	
IC801	8-759-085-76	IC S-81332HG-KC-T1	
IC810	8-759-530-69	IC XC61AC4502PR	
IC820	8-759-521-35	IC TL5001CD	
IC861	8-759-360-66	IC TL1453CPW-E20	
IC862	8-759-066-61	IC TC4053BFS	
IC901	8-759-493-57	IC ES3210	
IC902	8-759-524-92	IC MX23C1010TC-90	
IC903	8-759-498-43	IC MSM54V16258ASL-45TSK	
IC920	8-759-493-55	IC TC90A07U	
IC921	8-759-085-76	IC S-81332HG-KC-T1	
IC960	8-759-433-44	IC MM1031XML	

Ref. No.	Part No.	Description	Remark
		< JACK >	
J301	1-565-287-11	JACK (🎧 PHONES)	
J801	1-778-153-11	JACK, DC (POLARITY UNIFIED TYPE)	(DC IN 6V)
J901	1-778-040-11	JACK, SMALL TYPE (AUDIO/VIDEO OUT)	
		< COIL >	
L301	1-412-002-31	INDUCTOR CHIP 4.7uH	
L320	1-412-002-31	INDUCTOR CHIP 4.7uH	
L321	1-412-002-31	INDUCTOR CHIP 4.7uH	
L322	1-412-002-31	INDUCTOR CHIP 4.7uH	
L323	1-412-979-21	INDUCTOR 1uH	
L501	1-414-398-11	INDUCTOR 10uH	
L502	1-414-398-11	INDUCTOR 10uH	
L503	1-414-854-11	INDUCTOR 1mH	
L504	1-414-404-11	INDUCTOR 100uH	
L505	1-414-404-11	INDUCTOR 100uH	
L506	1-414-402-21	INDUCTOR 47uF (TYPE B)	
L507	1-414-402-21	INDUCTOR 47uF (TYPE B)	
L601	1-410-997-31	INDUCTOR CHIP 2.2uH	
L602	1-410-997-31	INDUCTOR CHIP 2.2uH	
L801	1-414-392-21	INDUCTOR 1uH	
L820	1-414-526-21	INDUCTOR 47uH	
L880	1-414-526-21	INDUCTOR 47uH	
L901	1-414-392-21	INDUCTOR 1uH	
L902	1-410-997-31	INDUCTOR CHIP 2.2uH	
L921	1-412-979-21	INDUCTOR 1uH	
L923	1-414-398-11	INDUCTOR 10uH	
L924	1-410-997-31	INDUCTOR CHIP 2.2uH	
L960	1-410-993-11	INDUCTOR CHIP 1uH	
L961	1-412-002-31	INDUCTOR CHIP 4.7uH	
		< TRANSISTOR >	
Q101	8-729-231-74	TRANSISTOR 2SC4116-GL	
Q201	8-729-231-74	TRANSISTOR 2SC4116-GL	
Q340	8-729-907-39	TRANSISTOR IMD2	
Q341	8-729-231-74	TRANSISTOR 2SC4116-GL	
Q342	8-729-029-14	TRANSISTOR DTC144EUA-T106	
Q501	8-729-904-86	TRANSISTOR 2SB1197K-Q	
Q502	8-729-921-05	TRANSISTOR FMC3-T148	
Q503	8-729-930-32	TRANSISTOR UMH11	
Q504	8-729-930-32	TRANSISTOR UMH11	
Q505	8-729-029-14	TRANSISTOR DTC144EUA-T106	
Q506	8-729-231-74	TRANSISTOR 2SC4116-GL	
Q507	8-729-029-14	TRANSISTOR DTC144EUA-T106	
Q508	8-729-029-14	TRANSISTOR DTC144EUA-T106	
Q509	8-729-028-91	TRANSISTOR DTA144EUA-T106	
Q601	8-729-029-14	TRANSISTOR DTC144EUA-T106	
Q701	8-729-928-70	TRANSISTOR DTA143TE-TL	
Q702	8-729-202-38	TRANSISTOR 2SC3326N	
Q703	8-729-028-91	TRANSISTOR DTA144EUA-T106	
Q801	8-729-904-86	TRANSISTOR 2SB1197K-Q	
Q802	8-729-903-10	TRANSISTOR FMW1	
Q803	8-729-930-32	TRANSISTOR UMH11	
Q810	8-729-930-32	TRANSISTOR UMH11	
Q820	8-729-028-91	TRANSISTOR DTA144EUA-T106	
Q822	8-729-043-79	TRANSISTOR 2SJ517TL	
Q861	8-729-921-05	TRANSISTOR FMC3-T148	
Q881	8-729-043-79	TRANSISTOR 2SJ517TL	
Q882	8-729-043-79	TRANSISTOR 2SJ517TL	
Q891	8-729-024-44	TRANSISTOR 2SK2315TYTR	
		< RESISTOR >	
R101	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R102	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R103	1-216-834-11	METAL CHIP 12K 5% 1/16W	
R105	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R106	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R107	1-216-789-11	METAL CHIP 2.2 5% 1/16W	
R108	1-216-813-11	METAL CHIP 220 5% 1/16W	
R201	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R202	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R203	1-216-834-11	METAL CHIP 12K 5% 1/16W	
R205	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R206	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R207	1-216-789-11	METAL CHIP 2.2 5% 1/16W	
R208	1-216-813-11	METAL CHIP 220 5% 1/16W	
R301	1-216-809-11	METAL CHIP 100 5% 1/16W	
R302	1-216-809-11	METAL CHIP 100 5% 1/16W	
R303	1-216-809-11	METAL CHIP 100 5% 1/16W	
R311	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R313	1-216-864-11	METAL CHIP 0 5% 1/16W	
R314	1-216-857-11	METAL CHIP 1M 5% 1/16W	
R315	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R316	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R320	1-216-803-11	METAL CHIP 33 5% 1/16W	
R323	1-216-857-11	METAL CHIP 1M 5% 1/16W	
R324	1-216-809-11	METAL CHIP 100 5% 1/16W	
R325	1-216-809-11	METAL CHIP 100 5% 1/16W	
R326	1-216-809-11	METAL CHIP 100 5% 1/16W	
R501	1-218-667-11	METAL CHIP 91 0.5% 1/16W	
R502	1-218-735-11	METAL CHIP 62K 0.5% 1/16W	
R503	1-218-735-11	METAL CHIP 62K 0.5% 1/16W	
R504	1-218-735-11	METAL CHIP 62K 0.5% 1/16W	
R505	1-218-735-11	METAL CHIP 62K 0.5% 1/16W	
R506	1-218-739-11	METAL CHIP 91K 0.5% 1/16W	
R507	1-218-739-11	METAL CHIP 91K 0.5% 1/16W	
R508	1-216-308-00	METAL CHIP 4.7 5% 1/10W	
R509	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R510	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R511	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R512	1-216-843-11	METAL CHIP 68K 5% 1/16W	
R513	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R514	1-218-700-11	METAL CHIP 2.2K 0.5% 1/16W	
R515	1-218-700-11	METAL CHIP 2.2K 0.5% 1/16W	
R516	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R517	1-216-835-11	METAL CHIP 15K 5% 1/16W	
R519	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R520	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R521	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R522	1-216-843-11	METAL CHIP 68K 5% 1/16W	
R523	1-218-743-11	METAL CHIP 130K 0.5% 1/16W	
R524	1-216-850-11	METAL CHIP 270K 5% 1/16W	
R525	1-216-830-11	METAL CHIP 5.6K 5% 1/16W	
R526	1-216-835-11	METAL CHIP 15K 5% 1/16W	

MAIN

Ref. No.	Part No.	Description			Remark
R527	1-216-845-11	METAL CHIP	100K	5%	1/16W
R528	1-216-857-11	METAL CHIP	1M	5%	1/16W
R530	1-216-821-11	METAL CHIP	1K	5%	1/16W
R531	1-216-845-11	METAL CHIP	100K	5%	1/16W
R532	1-216-861-11	METAL CHIP	2.2M	5%	1/16W
R533	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R534	1-216-809-11	METAL CHIP	100	5%	1/16W
R536	1-216-295-11	SHORT	0 (TYPE A)		
R541	1-216-841-11	METAL CHIP	47K	5%	1/16W
R542	1-216-821-11	METAL CHIP	1K	5%	1/16W
R543	1-216-821-11	METAL CHIP	1K	5%	1/16W
R601	1-216-845-11	METAL CHIP	100K	5%	1/16W
R602	1-216-839-11	METAL CHIP	33K	5%	1/16W
R603	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R604	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R605	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R606	1-216-857-11	METAL CHIP	1M	5%	1/16W
R607	1-216-833-11	METAL CHIP	10K	5%	1/16W
R608	1-216-864-11	METAL CHIP	0	5%	1/16W
R609	1-216-813-11	METAL CHIP	220	5%	1/16W
R610	1-216-864-11	METAL CHIP	0	5%	1/16W
R611	1-216-841-11	METAL CHIP	47K	5%	1/16W
R612	1-218-740-11	METAL CHIP	100K	0.5%	1/16W
R613	1-216-864-11	METAL CHIP	0	5%	1/16W
R614	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R615	1-216-864-11	METAL CHIP	0	5%	1/16W
R618	1-216-809-11	METAL CHIP	100	5%	1/16W
R619	1-216-833-11	METAL CHIP	10K	5%	1/16W
R620	1-216-833-11	METAL CHIP	10K	5%	1/16W
R621	1-216-809-11	METAL CHIP	100	5%	1/16W
R622	1-216-809-11	METAL CHIP	100	5%	1/16W
R623	1-216-809-11	METAL CHIP	100	5%	1/16W
R681	1-216-833-11	METAL CHIP	10K	5%	1/16W
R682	1-216-864-11	METAL CHIP	0	5%	1/16W
R683	1-216-864-11	METAL CHIP	0	5%	1/16W
R684	1-216-809-11	METAL CHIP	100	5%	1/16W
R685	1-216-809-11	METAL CHIP	100	5%	1/16W (TYPE B)
R686	1-216-809-11	METAL CHIP	100	5%	1/16W (TYPE B)
R687	1-216-809-11	METAL CHIP	100	5%	1/16W (TYPE B)
R700	1-216-853-11	METAL CHIP	470K	5%	1/16W
R701	1-216-845-11	METAL CHIP	100K	5%	1/16W
R702	1-216-845-11	METAL CHIP	100K	5%	1/16W
R703	1-216-864-11	METAL CHIP	0	5%	1/16W
R704	1-216-853-11	METAL CHIP	470K	5%	1/16W
R705	1-216-833-11	METAL CHIP	10K	5%	1/16W
R706	1-216-833-11	METAL CHIP	10K	5%	1/16W
R707	1-216-857-11	METAL CHIP	1M	5%	1/16W
R708	1-216-853-11	METAL CHIP	470K	5%	1/16W
R709	1-216-845-11	METAL CHIP	100K	5%	1/16W
R710	1-216-853-11	METAL CHIP	470K	5%	1/16W
R711	1-216-853-11	METAL CHIP	470K	5%	1/16W
R712	1-216-845-11	METAL CHIP	100K	5%	1/16W
R713	1-216-853-11	METAL CHIP	470K	5%	1/16W
R714	1-216-813-11	METAL CHIP	220	5%	1/16W
R715	1-216-845-11	METAL CHIP	100K	5%	1/16W
R716	1-216-851-11	METAL CHIP	330K	5%	1/16W
R801	1-218-742-11	METAL CHIP	120K	0.5%	1/16W (TYPE A)
R801	1-218-743-11	METAL CHIP	130K	0.5%	1/16W (TYPE B)
R802	1-218-740-11	METAL CHIP	100K	0.5%	1/16W (TYPE A)
R802	1-218-739-11	METAL CHIP	91K	0.5%	1/16W (TYPE B)
R803	1-218-752-11	METAL CHIP	330K	0.5%	1/16W
R810	1-216-833-11	METAL CHIP	10K	5%	1/16W
R811	1-216-847-11	METAL CHIP	150K	5%	1/16W
R812	1-216-821-11	METAL CHIP	1K	5%	1/16W
R813	1-216-817-11	METAL CHIP	470	5%	1/16W
R814	1-216-295-11	SHORT	0		
R815	1-216-809-11	METAL CHIP	100	5%	1/16W
R820	1-218-731-11	METAL CHIP	43K	0.5%	1/16W
R821	1-218-733-11	METAL CHIP	51K	0.5%	1/16W
R822	1-216-833-11	METAL CHIP	10K	5%	1/16W
R824	1-216-801-11	METAL CHIP	22	5%	1/16W
R826	1-216-857-11	METAL CHIP	1M	5%	1/16W
R827	1-218-722-11	METAL CHIP	18K	0.5%	1/16W
R828	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R860	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R861	1-218-732-11	METAL CHIP	47K	0.5%	1/16W
R862	1-218-730-11	METAL CHIP	39K	0.5%	1/16W
R863	1-218-730-11	METAL CHIP	39K	0.5%	1/16W
R864	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R865	1-218-732-11	METAL CHIP	47K	0.5%	1/16W
R866	1-218-730-11	METAL CHIP	39K	0.5%	1/16W
R867	1-218-730-11	METAL CHIP	39K	0.5%	1/16W
R869	1-216-833-11	METAL CHIP	10K	5%	1/16W
R870	1-218-723-11	METAL CHIP	20K	0.5%	1/16W
R871	1-216-833-11	METAL CHIP	10K	5%	1/16W
R872	1-216-833-11	METAL CHIP	10K	5%	1/16W
R873	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R874	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R880	1-216-801-11	METAL CHIP	22	5%	1/16W
R881	1-216-857-11	METAL CHIP	1M	5%	1/16W
R883	1-218-727-11	METAL CHIP	30K	0.5%	1/16W
R884	1-218-722-11	METAL CHIP	18K	0.5%	1/16W
R885	1-216-857-11	METAL CHIP	1M	5%	1/16W
R886	1-216-809-11	METAL CHIP	100	5%	1/16W
R887	1-216-295-11	SHORT	0		
R888	1-216-295-11	SHORT	0		
R892	1-216-857-11	METAL CHIP	1M	5%	1/16W
R893	1-216-295-11	SHORT	0		
R896	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R897	1-218-714-11	METAL CHIP	8.2K	0.5%	1/16W
R898	1-216-295-11	SHORT	0		
R901	1-216-833-11	METAL CHIP	10K	5%	1/16W
R904	1-216-845-11	METAL CHIP	100K	5%	1/16W
R910	1-216-809-11	METAL CHIP	100	5%	1/16W
R911	1-216-809-11	METAL CHIP	100	5%	1/16W
R912	1-216-809-11	METAL CHIP	100	5%	1/16W
R913	1-216-809-11	METAL CHIP	100	5%	1/16W
R914	1-216-809-11	METAL CHIP	100	5%	1/16W
R915	1-216-809-11	METAL CHIP	100	5%	1/16W

Ref. No.	Part No.	Description			Remark
R920	1-216-845-11	METAL CHIP	100K	5%	1/16W
R921	1-218-728-11	METAL CHIP	33K	0.5%	1/16W (TYPE A)
R921	1-218-732-11	METAL CHIP	47K	0.5%	1/16W (TYPE B)
R922	1-218-724-11	METAL CHIP	22K	0.5%	1/16W (TYPE A)
R922	1-218-728-11	METAL CHIP	33K	0.5%	1/16W (TYPE B)
R923	1-216-845-11	METAL CHIP	100K	5%	1/16W
R924	1-216-857-11	METAL CHIP	1M	5%	1/16W
R925	1-216-845-11	METAL CHIP	100K	5%	1/16W
R926	1-216-845-11	METAL CHIP	100K	5%	1/16W
R927	1-216-845-11	METAL CHIP	100K	5%	1/16W
R929	1-216-809-11	METAL CHIP	100	5%	1/16W
R930	1-216-809-11	METAL CHIP	100	5%	1/16W
R932	1-216-833-11	METAL CHIP	10K	5%	1/16W
R960	1-216-809-11	METAL CHIP	100	5%	1/16W
R961	1-218-285-11	METAL CHIP	75	5%	1/10W (TYPE A)
R961	1-216-022-11	METAL CHIP	75	5%	1/10W (TYPE B)
R962	1-216-833-11	METAL CHIP	10K	5%	1/16W
R963	1-216-821-11	METAL CHIP	1K	5%	1/16W
		< COMPOSITION CIRCUIT BLOCK >			
RB901	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4			
RB902	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4			
RB903	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4			
RB904	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4			
RB905	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4			
RB906	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4			
RB907	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4			
RB908	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4			
RB909	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4			
RB910	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4			
RB911	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4			
RB913	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4			
RB914	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4			
RB915	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4			
RB916	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4			
RB917	1-233-955-21	RES, NETWORK (CHIP TYPE) 100X4			
		< VARIABLE RESISTOR >			
RV301	1-225-570-21	RES, VAR 10Kx10K (◢ VOLUME)			
		< SWITCH >			
S701	1-572-922-11	SWITCH, SLIDE (HOLD ▬◣)			
S702	1-572-922-11	SWITCH, SLIDE (RESUME)			
S703	1-692-605-31	SWITCH, SLIDE (VIDEO SYSTEM PAL/AUTO/NTSC)			
		< TRANSFORMER >			
T891	1-431-652-21	TRANSFORMER, DC-DC CONVERTER			
		< VIBRATOR >			
X320	1-767-366-21	VIBRATOR, CERAMIC (16.9344MHz)			
X701	1-579-063-21	VIBRATOR, CERAMIC (4.19MHz)			
X920	1-767-519-11	VIBRATOR, CRYSTAL (27MHz)			

9-923-278-81

Sony Corporation
Personal A&V Products Company

98C057025-1
Printed in Singapore © 1998. 3
Published by Quarity Engineering Dept.
(Shibaura)